CONSTRUCTION NEWS

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RAILWAYS.

ARANSAS TERMINAL RY.—We are officially advised that surveys have been made, capital obtained and right-of-way secured for this proposed line which will extend from the mainland at Aransas Pass, to deep water at Aransas Pass, Tex. It will be seven miles long. Company has just been chartered and officers have not yet been elected. As noted on March 10, the incorporators are E. O. Burton, A. H. Danforth, A. J. Bell and A. L. Matlock, of San Antonio, Tex.; J. J. Welder, of Victoria, Tex.; J. F. Green, of Gregory, Tex.; D. M. Picton, of Rockport, Tex.; R. P. Clark, of Galveston; F. L. Alvord and T. P. Boyd, of Fort Worth, Tex. C. S. Corrigan is Ch. Engr., Box 183, Aransas Pass.

AUGUSTA, LINCOLNTON & NORTHERN.—We are officially informed that no steps have yet been taken toward construction of this railway. It will run from Augusta to Danielsville, Ga., and will be about 100 miles long. T. H. Verdel, Elberton, Ga., is Ch. Engr. Noted on March 17 and March 24.

BOWDON RY.—Chartered in Georgia with $60,000 capital stock to build a line from Bowdon, Ga., to connect with either the Central of Georgia or the Southern Ry., 12 to 18 miles. Location survey will begin immediately, after which bids will be received. The incorporators are J. L. Lovvom, J. W. Barrow, O. P. Bennett, J. R. Fowler, H. J. Reeves, R. M. Lvvom, John W. Eason and W. T. Johnson, of Bowdon, Carroll County; J. M. Terrell, of Meriwether; Thomas J. Lovvom and G. W. Traylor, of Randolph County, Ala.

BRITISH COLUMBIA.—The Fraser River Lumber Co. has awarded contract to S. H. ABBOTT, Seattle, Wash., for a 9-mile extension to its lumber line in British Columbia, it is said. Estimated cost, $100,000.

CANADA.—The Senate met recently after three weeks' adjournment. Senator Davis introduced a bill to provide for the incorporation of railway charters by the Railway Commission instead of by act of Parliament, as at present, similar to the practice in the United States.

According to the Montreal "Gazette," Senator Davis "saw no reason why the time of Parliament should be taken up solemnly passing charters for the authorization of railways which never would be built, and which the promoters knew would never be built. Statistics showed that from 1900 to 1908 Parliament had authorized 65 companies, outside the Canadian Pacific Railway, Grand Trunk and Grand Trunk Pacific and Canadian Northern, to build 37,862 miles of railroad. Of this there had been only 463 miles built and that by only thirteen companies. This showed charter-mongering. Under his bill, before a body of men could get a charter from the Railway Commission, they would have to do preliminary surveying, which would cost about $250 a mile. That expenditure would discourage charter-mongering.

"His bill would apply to the big companies and would prevent them holding routes against rivals by only chartering them. They would have to build or let someone else do so. It would prevent overbonding of lines, for the surveys would show the approximate cost of the road, and guide the commission in authorizing bonds to an amount only on which interest could be paid. This would prevent people buying bad bonds and work to keep down traffic rates. Senator Davis thought that his plan would save a month's time of Parliament if it would enable the railway business to be better handled; there would be no more lobbying. It had been suggested that the State Department should issue charters on the recommendation of the Minister of Railways, instead of the Railway Commission. He would be willing to have that change made. Senator Davis moved the adjournment of the debate."

CANADIAN NORTHERN.—Construction will commence about June 1 on the new line of the Canadian Northern Ry., on the south side of Frazer River, opposite New Westminster, and near Vancouver, B. C., and from Victoria to Quatsino Sound. The company expects to have 100 miles of roadbed on the North Thompson River, north of Kamloops, completed before next fall.

DELAWARE, LACKAWANNA & WESTERN.—We are officially advised that TIMOTHY BURKE, of Scranton, Pa., has been awarded a contract for building the new four-mile cut-off of the Lackawanna line at Analomink, near Stroudsburg, Pa. Noted on April 7. G. J. Ray, Hobokon, N. J., Ch. Engr.

EL PASO & SOUTHWESTERN SYSTEM.—This company has engineers in the field locating the route for an extension of the line from Benson to Tucson and Phoenix, Ariz. It is announced that the construction of the extension will be started this year. F. B. Wilson is Engr., Douglas, Ariz.

GRAND TRUNK RY. SYSTEM.—See Southern New England Ry.

HOT SPRINGS, GLENWOOD & WESTERN.—The Arkansas State Board of Railroad Incorporators has granted the Hot Springs, Glenwood & Western R. R. Co. a charter. The road is capitalized at $350,000, and will be 35 miles long, extending from Glenwood, in Pike County, to Hot Springs. The incorporators are A. L. Clarke, J. A. Bonner, W. E. Mayber, C. T. Crosby and S. W. Pryor.

IRON MOUNTAIN, ST. GEORGE & GRAND CANYON.—Incorporated in Arizona to build from Thermo (Milford post-office), Beaver County, Utah, on the San Pedro, Los Angeles & Salt Lake R. R., south to Cedar City and Kanarraville, thence southwest via St. George to the Santa Fe., in the Hualapai valley, at or near Kingman, Ariz., a distance of 240 miles, with branches. Capital, $24,000,000. J. R. Walker, Charles Read, Elias S. Kimball, A. Hanauer, Jr., Archibald E. Rykert, John H. Woodmansee, and M. T. Burgess, all of Salt Lake City, Utah, are the incorporators.

LACLEDE, DALLAS & WESTERN.—Company has prepared maps and profiles for its line from Phillipsburg, Laclede County, Mo., to Buffalo, Dallas County, and is ready to receive bids. H. W. Smith, American Bank Bldg., Kansas City, Mo., is Ch. Engr. Noted on Feb. 24.

LOUISVILLE & NASHVILLE.—D. B. LACY, of Anniston, Ala., has been awarded the contract for grading 100,000 yds. for a new railway yards for the Louisville & Nashville Ry. Co. at Paris, Ky. Estimated cost, $50,000.

MARION RY.—Incorporated in Illinois, with $10,000 capital, and office at Marion, Ill. Company will construct a line from a point on the Herrin Southern Ry., about three miles southwest of Marion, to Marion, thence northerly to Johnson City, in Williamson County. The directors include A. E. Harper, E. J. Hughes, L. D. Dody and C. A. Brickett, all of Chicago.

McCRORY TRANSPORTATION CO.—Organized at McCrory, Ark., to build a railroad from McCrory northward 16 miles into Jackson County. The officers of the company are: Pres., Clayton Hailey; Vice-Pres., E. L. Hamilton; Secy. and Treas., R. B. Keating, all of McCrory.

MIDLAND PENNSYLVANIA R. R.—This company has been chartered in Pennsylvania to build from Millersburg, Dauphin County, to Ashland, Schuylkill County, through the towns of Killinger, Berrysburg and Gratz, Dauphin County, and the towns of Sacramento, Valley View, Hegins, Weisample, Maple and Gordon, in Schuylkill County, 43 miles. The capital is $430,000. The incorporators are Walter E. Harrington, of Pottsville; John F. B. Atkins, Franklin C. Dively, William M. Sheahan and William A. Radford, Philadelphia; Edward A. Price, of Chester; Robert J. Ritchie, Frank A. Apple and Joseph B. Launing, Philadelphia, and Harry B. Reeves, Woodbury, N. J.

OKLAHOMA.—That 3,000 miles of railroad now projected in Oklahoma will be constructed if the state constitution is amended, removing restrictions on railways is stated in the argument filed by the Oklahoma Federated Commercial Clubs with the Secretary of State at Guthrie, as a final step toward holding an election at which the proposed amendments are to be submitted. "Before statehood," states the argument, "we had an active period of railroad building which has now ceased. The cause is apparent. There is no money in Oklahoma to build them and outside capital cannot be induced to invest because, when built the roads cannot be sold. The adoption of this amendment will bring the state within the next two years $75,000,000 in taxable railroad property."

OREGON TRUNK RY.—John F. Stevens, Portland, Ore., Pres. of the Oregon Trunk Ry., has given notice that bids will be received until May 1 for the construction of 130 miles of the new road penetrating Central and Southern Oregon, according to local press reports. The contract will involve construction to cost between $4,000,000 and $5,000,000. It will be the largest contract let in the Pacific Northwest in many years. PORTER BROS., of Spokane, Wash., have the contract for the first 110 miles of the Oregon Trunk Ry., which has its beginning near Deschutes, on the south bank of the Columbia River. The contract runs to a point midway between Madras and Bend, Ore. The next division mapped out by the Oregon Trunk engineers calls for 130 miles of road which takes the new system into the Klamath Lake country in Southern Oregon.

PENSACOLA & SOUTHWESTERN.—Incorporated in Alabama with $50,000 capital stock. The railroad is to be constructed from Milview, Fla., to Point Clear, Ala., via Lillian, Ala., and will reach all the towns in the lower end of Baldwin County. The incorporators are Charles Barclay, of Lillian; John MacDonald and W. D. Stapleton, of Bay Minette, Ala., and Henry McLaughlin, of Pensacola, Fla. The officers elected are: Pres., Charles Barclay; Vice-Pres. and Asst. Secy., John MacDonald; Treas., W. D. Stapleton; Secy., Junius Hall.

PHILADELPHIA & READING.—Plans have been prepared and an ordinance is to be introduced in the Philadelphia Councils at an early date, for the building of a new cross town freight line by the Philadelphia & Reading Ry. Co., to parallel the New York division. Wm. Hunter is Ch. Engr., Philadelphia.

PRAIRIE FARM & SOUTHWESTERN.—G. E. Scott, Pres., Prairie Farm, Wis., informs us that surveys are now being made for this railway which is to be constructed from Prairie Farm to Emerald, 25 miles. Right-of-way has been secured. Capital for construction is partly obtained. J. H. Thomas is Ch. Engr., Prairie Farm. Noted on Feb. 10.

SOUTHERN NEW ENGLAND.—A bill granting a charter to the Southern New England Ry. Co. to be run as a branch of the Grand Trunk Railway, was passed by the House of Representatives at Providence, R. I., on April 7. The bill, if passed by the Senate and signed by Governor Pothier, will give the Grand Trunk a direct line through Rhode Island, with a seaport outlet at Providence. The bill passed was one drafted by the House Committee on Corporations as a substitute for the original charter bill, which had been referred to that committee for consideration. It fixes the location of the proposed line more definitely than the original bill and makes more stringent provisions regarding the establishment of grade crossings, and the extent to which the new road may be permitted to utilize property of the New York, New Haven & Hartford R. R. Co. in Rhode Island. The bill was passed by a unanimous vote. Noted on Feb. 17.

The Grand Trunk charter bill was signed on April 12 by Gov. Aram J. Pothier. The bill gives the Southern New England Ry. Co., a projected auxiliary of the Grand Trunk, a direct line through Rhode Island, with seaport outlet at Providence.

ELECTRIC RAILWAYS.

SENECA FALLS, N. Y.—The Village Board of Trustees has formally approved the Geneva & Auburn Ry. Co.'s franchinse. S. H. Dailey is Gen. Supt., Seneca Falls.

ALTOONA, PA.—The Johnstown & Altoona Ry. Co. will commence grading this summer on its proposed line from South Fork, Pa., to Altoona, via Portage, Cresson and Gallitzin. There will be twelve bridges. G. U. G. Holman is Gen. Mgr and Engr., Johnstown, Pa. Noted last week.

PHILADELPHIA, PA.—The property of the Philadelphia & Western Ry. Co., operating an electric line between Philadelphia and Strafford, Pa., has been purchased by the banking firm of Edward B. Smith & Co., of Philadelphia.

ELKTON, MD.—The Elkton, Fairhill & Oxford Electric Railway & Power Co., of Elkton, Md., has been organized to build a line from Elkton to Cherry Hill and Fair Hill, and thence to the Pennsylvania boundary, from which point it may be extended to Oxford, Pa. Capital, $60,000, which may be increased to $500,000. Incorporators are Geo. E. L. Hess, Heister Hess, C. P. Canriet, John Lungren and H. Eugene Mackin.

ROANOKE, VA.—We are officially advised that contract for construction of the Mill Mountain Incline Ry. up Mill Mountain, at Roanoke, Va., 2,000 ft., has been awarded to C. MARKLEY, of Roanoke. Wingate & McGhee are the Engrs., Roanoke. Machinery and equipment will be furnished by the LIDGERWOOD MFG. CO., 196 Liberty St., New Yoork. Noted on March 17.

ATHENS, GA.—The Athens Railway & Electric Co. has been chartered, with $1,000,000 capital, to build a street railway and electric power plant. The incorporators are John R. White, of Whitehall, Ga.; J. Y. Carithers, W. S. Holman, A. H. Hodgson, C. D. Flanigan, Billups Phinizy, James White, J. M. Hodgson, J. W. Morton and W. T. Bryan, all of Athens, Ga.

McCOMB, MISS.—A franchise has been granted to W. M. and J. J. White, Jr., of the Liberty-White R. R. Co., to put in a complete electric street car line, covering the principal business streets of the city, starting from the Liberty-White depot in South McComb and traversing the west, northern and central portions of McComb.

CLARKSVILLE, TENN.—The Clarksville & New Providence Railway Co. has been organized with $25,000 capital to build an electric railway from Clarksville to New Providence and thence along the Hopkinsville Turnpike. It is stated that all material has been purchased. Power will be supplied by the Clarksville Railway & Light Co. Incorporators: Dr. N. L. Carney, Austin Peay, L. Bloch, E. Trahern and A. C. Murray.

LOUISVILLE, KY.—The Louisville Railway Co., it is reported, plans to extend its line to Kosmosdale, a distance of 3½ miles from the present terminus at Orell. Agents of the company are securing right-of-way from the owners of property along the line. The Kosmosdale Cement Co. and several land owners are aiding them in this respect. T. J. Minary is Gen. Mgr., 329 West Jefferson St., Louisville.

DETROIT, MICH.—The Detroit United Ry. Co. plans to spend approximately $400,000 in constructing five miles of track for its new crosstown lines, according to the statement of George W. Cook, Attorney for the company, at a special meeting of the Common Council recently. The meeting was held for the purpose of passing an ordinance approving the maps and profiles of the lines. F. W. Brooks is Gen. Mgr.

CHICAGO, ILL.—When the "immediate rehabilitation" period for the Chicago City Railway Co. expires on April 15, its officials can point to a record of achievement in railroad building, according to the Chicago "Record-Herald." The traction ordinance was accepted by the company April 15, 1907, and under its provisions three years were allowed from the date of acceptance to complete the work of rebuilding the tracks, substations and car barns. The work which has been accomplished is well in advance of that actually required by the terms of the settlement ordinance. At a cost of approximately [illegible] the old cable tracks have been replaced by modern grooved rails, the electric lines have been rebuilt, car houses have been constructed and substations erected with a capacity of 43,700 kilowatts. New cars to the number of 350 have been placed on the lines and the older cars remodeled and equipped with new tracks and operating gear.

The amount of work, summarized, is as follows: New tracks, including extensions and yards, 114 miles; underground conduit laid, 430 miles; underground feeders, 170 miles; return feeders, 75 miles; overhead trolley, 150 miles; five substations; five car houses.

By the terms of the ordinance the company was required to have at least 800 double-truck cars in operation on its lines at the close of the period designated for "immediate rehabilitation." It has 840 such cars now in operation and 45 being built, which will be completed within the next six weeks.

ELDORADO, ILL.—The Egyptian Traction Co. has been granted right-of-way through White County. It is planned to extend this railway to the Wabash River below Maunie, Ill., and into Indiana. It will connect Murphysboro, Marion, Carriers Mills, Harrisburg, Eldorado, Ridgeway and New Haven, Ill., and Mount Vernon, Ind., as noted on March 17. Geo. Clark, Harrisburg, Ill., is Ch. Engr.

DES MOINES, IOWA.—The Omaha, Council Bluffs & Sioux City R. R. Co. announces that construction will begin as soon as preliminary work is completed on its proposed 100-mile electric railway which is to connect Omaha, Council Bluffs, Beebeetown, Logan, Magnolia, Little Sioux, Onawa, Oswego, Luton, Morningside and Sioux City. Capital stock authorized, $10,000. M. H. Miller is Pres., Secy. and Gen. Mgr., Youngerman Block, Des Moines; B. J. Ness, Des Moines, is Vice-Pres., and J. W. Russell, of Adel, Iowa, is Treas.

OSWEGO, KAN.—The Oswego Columbus & Cherryvale Electric Ry. Co., has been incorporated, capital $50,000, with headquarters at Oswego, Kan., build a line from Columbus to Cherryvale, 47 miles. The incorporators are S. B. Miller, of Oswego; D. Christman, W. J. Jones and G. Torbert, of Altamont, Kan.; I. M. Hinds, of Mound Valley; David Dunbar, of Hallowell; C. A. Mitchell, of Cherryvale; and T. F. Stice, of Oswego.

OMAHA, NEB.—The Nebraska Traction & Power Co. will extend its line from Ralston to Papillion and the work on the extension will begin in the near future. This interurban line now runs from Omaha to Ralston. Wm. D. Crist is Gen. Mgr., 902 N. Y. Life Bldg., Omaha.

BOZEMAN, MONT.—Contract has been awarded to CALLAHAN BROS., Logan, Mont., for grading, etc., on an extension of the Gallatin Valley Elec. Ry., it is reported from Bozeman to Three Forks, 27½ miles. Chas. B. Anderson, Butte, Mont., is Mgr.

VIRGINIA CITY, MONT.—The Virginia City Southern Elec. Ry. Co. is reported to have made application for a charter in Montana "to build an electric railway from the Ruby Valley branch of the Northern Pacific Railway via Ruby, Junction, Adobetown and Nevada to Virginia City, a distance of twelve miles, and from Virginia City via Ennis up the Madison Valley to Lyon, about 50 miles southeast of Virginia City. The necessary funds for making surveys and other preliminary matters have been subscribed. Power plant, car houses and principal place of business will be located in Virginia City. Capital stock, authorized, $200,000. Incorporators: Luther H. Leber, New York, N. Y.; A. J. Bennett, Karl Elling, W. A. Clark and George E. Gohn, of Virginia City."

PALESTINE, TEX.—George W. Burkitt, of Houston, who owns the electric plant at Palestine, is promoting the proposition to build an electric street railway here. He proposes to form a company with local business men and himself as stockholders to establish the proposed system. Application will be made to the city council for a franchise to cover the principal streets.

VICTORIA, TEX.—The Council has granted a franchise to operate either electric or gasoline cars over the principal streets of Victoria to J. J. Welder, F. B. Lander, A. A. Sitterle, J. N. Fagan, T. D. Wood, J. W. Rutland and J. K. Hexter, Victoria. Noted on March 31.

AUSTIN, TEX.—John Andreawatha, an engineer and contractor of Austin, has applied to the City Council for a franchise to construct and operate a gasoline or electric motor car system over the principal business and residence streets.

The Austin Dam & Suburban Ry. Co., which formerly operated several miles of electric railway in Austin and a line extending to the site of the dam and pleasure resort on the Colorado River, three miles west of the city, which was destroyed by a flood several years ago, is rebuilding the line which runs to the dam site in order to be prepared to handle the material for constructing the new dam across the river at that place, the contract for which was recently awarded.

The application of the Austin Electric Ry. Co. for a franchise across the new concrete bridge that spans the Colorado River here, connecting the city with the suburb of South Austin, has not yet been granted. If it is granted the company will build its line into South Austin, covering the principal streets of that suburb.

FORT WORTH, TEX.—The Northern Texas Traction Co. may extend several of its lines in Fort Worth and make other improvements, it is reported, which will cost about $1,000,000. H. T. Edgar is Mgr. Fort Worth. Stone & Webster, 147 Milk St., Boston, are the general managers.

HOUSTON, TEX.—The Houston-Galveston Interurban Ry. Co. has awarded contract for 350 miles of standard railroad barb wire fencing to the PEDEN IRON & STEEL CO., of Houston. The wire will be laid four strands, the posts to carry it, which will amount to about 20,000 in number, will be contracted for later.

Another large contract that this company expects to let in the near future will be for about 120,000 cu. yds. of shell for ballasting. This contract probably will be awarded to some local dredging or shell company, whose transportation charges will be reduced to a minimum. Noted fully on March 31. J. B. Townsend is Supt. of Construction, 410 First National Bank Bldg., Houston.

MIAMI, OKLA.—The Oklahoma, Kansas & Missouri Interurban Ry. Co. is making preparations to commence construction on its proposed 23-mile electric railway between Hattonville, Okla., and Galena, Kan. Power for operating the cars will be furnished by the Baxter Light & Power Co., Baxter Springs, Kan. This proposed railway will extend through the new lead and zinc district in Oklahoma. Franklin M. Smith, Joplin, Mo., is Pres. and Mgr. Noted on Jan. 13.

SAN RAFAEL, CAL.—Regarding the statement that a project is being considered by the Chamber of Commerce to construct an electric railway from Ross Valley through San Rafael to McNear's Point. S. A. Olmsted, Secy., Chamber of Commerce, advises us that the project is only in a preliminary stage. If built, the line will be six or eight miles long. Noted on Feb. 24.

SALT LAKE CITY, UTAH.—Le Grand Young, of Salt Lake City, has been granted a franchise by the Board of County Commissioners for a proposed electric railroad to connect the Emigration Canyon Road with Holliday.

NIAGARA FALLS, ONT. — The Niagara Falls, Welland & Dunnville Electric Ry. Co. has been incorporated. The capital stock is $200,000 and the company may issue bonds to the extent of $20,000 per mile. The parties interested are F. R. Lalor, of Dunnville; Franklin Buell, of Buffalo; John C. Gardner, George Arnold, F. E Misener, G. H. Burgar and H. A. Rose. The right-of-way will be from a point in or near Niagara Falls City, through Stamford, Thorold, Crowland, the town of Welland, the townships of Humberstone, Wainfleet, Moulton and Sherbrooke. Officers are as follows: F. R. Lalor, Dunnville, Pres.; George Arnold, Ridgeville, Vice-Pres.; F. E. Misener, Marshville, Secy.; George H. Burgar, Treas.; H. A. Rose, Welland, Solicitor. J. C. Gardiner, Engr., Niagara Falls, will begin making surveys at once, starting at Dunnville. Noted on Jan. 13.

LIGHT AND POWER PLANTS.

*RUMFORD, ME.—Bids were received by Charles A. Mixer, Engr., Rumford Falls Power Co., Rumford, on April 14, for the ledge excavation and masonry cradles for 1,000 ft. of 14-ft. penstock; for the relief pipe concrete spill-way; for machinery and building excavations and concrete foundations; for the brick and concrete station building and for the cofferdam and the ledge excavations of the tail race; all for an addition to the present power station. The approximate quantities of the principal items will be: 4,000 cu. yds. ledge excavation, 500 cu. yds. rubble masonry, 1,200 cu. yds. concrete and 112 cu. yds. brick work. We are officially advised that the H. P. CUMMINGS CONSTRUCTION CO., of Ware, Mass., has been awarded contract for cofferdams, ledge excavation, concrete foundations and brick power-house necessary for the additional development of 7,500 HP.

PORTLAND, ME.—The Consumers' Power Co., with a capitalization of $20,000,000, has filed a certificate of incorporation at the office of the Secretary of State, Augusta. The company was organized at Portland to manufacture, produce, generate, transmit, distribute and supply electricity for lighting, fuel or other purposes. The common and the preferred stock are each placed at $10,000,000, $300 of the capital stock is paid in, and the par value of a share is $100. The incorporators are: James R. Parsons, William M. Bradley and A. G. McPherson, all of Portland.

THREE RIVERS, MASS.—We are officially advised that the H. P. CUMMINGS CONSTRUCTION CO., of Ware, Mass., has been awarded contract by the Palmer Mill of the Otis Co., of Three Rivers, for the construction of their power development. Concrete dam will be 40 ft. high and 250 ft. long and the brick power-house 100 x 90 ft. Work includes all coffer dams, ledge excavation and concrete foundations.

PITTSFIELD, MASS.—GEORGE W. VAN VRANKEN, Schenectady representative of the Raymond Concrete Pile Co., New York and Chicago, has been awarded contract for placing Raymond concrete piles in the foundations of an addition to the power station of the Stanley Electric Co. at Pittsfield. M. Thrane is Supt. of Buildings and Construction.

WORCESTER, MASS.—The Worcester Consolidated St. Ry. Co. is making plans for temporary repairs to its power house on Tremont St. New equipment will be installed. Estimated cost, $10,000. H. C. Page, of Worcester, is Gen. Mgr.

SOMERVILLE, MASS.—The Boston & Maine R. R. Co. has commenced work on the construction of what will be known as the "running repair" shop, and will be located on the old Ten Hill farm, East Somerville. The plant when completed will cost about $2,000,000. The building now being constructed will be 203 ft. in length and 170 ft. wide, and will be equipped with an electric traveling crane, with a capacity of lifting 120 tons. A power house 150 ft. long and 100 ft. wide will be built, to furnish power for the plant. J. P. Snow, of Boston, is Ch. Engr.

NEW BEDFORD, MASS.—The Dartmouth & Westport Ry. Co. will make improvements at Lincoln Park which will cost about $70,000, and include a lighting plant to cost $12,000.

BOSTON, MASS.—The Boston Elevated Ry. Co. has purchased a site on which it will erect a new power-house to take the place of the one on Albany St., which was destroyed by fire.

LOWELL, MASS.—The Bigelow Carpet Co. has applied to the Public Building Department for permission to build a combination turbine house power station and picker house. Estimated cost, $50,000.

TIVERTON, R. I.—The Tiverton Electric Light Co. is making preparations for the construction of its proposed electric light plant here, work on which will begin as soon as the weather permits. The town has voted to appropriate $2,500 for 100 street lamps, the service to be furnished by the Tiverton Electric Light Co. The company is capitalized at $10,000. John R. Hicks is Pres.; George R. Lawton, Secy., and Owen Durfee, Treas.

PAWTUCKET, R. I.—The Pawtucket Electric Co., it is reported, has decided to increase the equipment of its power station and will install a 6,000-HP. steam turbine with alternating-current generator and auxiliary apparatus.

FORT GREBLE (Sauderstown post-office), R. I.—Bids will be received by Lieut. Frank H. Phipps, Jr., Construction Q. M., U. S. A., until May 11 for the extension and remodeling of an underground electrical distributing system at Fort Greble.

FORT TERRY, N. Y.—Bids will be received at the office of the Constructing Quartermaster, New London, Conn., until May 13 for construction, plumbing, heating, electric wiring and fixtures of one guardhouse and one quartermaster's storehouse at Fort Terry. Captain F. T. Arnold, of New London, is Constructing Q. M., U. S. A.

BUFFALO, N. Y.—The General Electric Co., 675 Ellicott Sq., has submitted a proposition to the Board of Supervisors offering to furnish electricity for the county jail on a sliding scale of from 9 to 4 cts. per KW-hour, according to the amount used.

NEWARK, N. J.—Plans have been prepared by the J. E. Mergott Co. for the construction of a new factory in Newark, which will include a steam driven electric power plant of from 125 to 150 HP. Equipment needed for the plant will include boiler, heater, pumps, engine, dynamo, switchboard, etc.

TRENTON, N. J.—The Trenton Water Power Canal Co. will erect a large powerhouse either in Trenton or Ewing Township. The plant will be equipped to supply power to manufacturing establishments. David W. Pepper, Jr., of Philadelphia, Pa., is interested. Noted on March 24.

PERKASIE, PA.—The Highland Gas Co. is asking for a franchise to construct a gas plant at Perkasie.

SUNBURY, PA.—The Sunbury & Selinsgrove St. Ry. Co. has decided to erect a power plant at Rolling Green. The equipment of the plant will include three 100-HP. boilers, two feed pumps, one closed feed-water heater, two Corliss engines and two direct-current generators.

WELLSVILLE, PA.—A 15-year franchise has been granted to Charles C. Spahr, of York, Pa., to construct and operate an electric plant here.

SEAFORD, DEL.—The South Delaware Gas Co. will soon begin the construction of a plant here to furnish gas and electricity to the lower Delaware towns.

DELAWARE CITY, DEL.—The city will be lighted by electricity, replacing the oil light service now in use. A 15-year contract has been made by the Town Council with the AMERICAN LIGHT & POWER CO., Delaware City, for a sufficient number of Tungsten lamps of 100 c. p. each to light the streets, the town guaranteeing that the minimum cost of the service in any year cannot be less than $1,000. The Council has the right to decide how much more shall be spent for lighting. It will designate the number of lamps and their location and will exercise general supervision over the service.

*BALTIMORE, MD.—Bids will be received by the Board of Awards, at the office of J. Sewell Thomas, City Register, until 11 a. m., May 11, for Contract 51, which calls for furnishing building and erecting the electrical and mechanical equipment for the sewage disposal works at Back River. Calvin W. Hendrick is Ch. Engr., Sewer Comn.

Bids are asked by the Board of Awards, care of J. Sewell Thomas, City Register, until 11 a. m., April 27, for electric street lighting; for electric current for all city buildings and for the supply of illuminating gas for street lamps and public buildings.

WASHINGTON, D. C.—Bids will be received at the office of the Chief Signal Officer, War Dept., Washington, D. C., until April 28, for furnishing 20,000 dry cells, under proposal No. 28. Capt. C. Def. Chandler is Ch. Signal Officer.

Bids are asked by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., until 11 a. m., May 21, for additions to power plant and distributing systems, U. S. Naval Medical School, Washington. Specifications are on file at the office of Engineering News, New York.

WILLAMSBURG, VA.—The Water Committee has rejected all bids received for a franchise to install an electric light and power plant here.

RICHMOND, VA.—Bids will be received until April 26 at the office of the City Electrician for furnishing and erecting poles, lamps, fixtures, wires, transformers and other materials for about 1,000 arc lamps and for lighting the public buildings of the city. E. W. Trafford is Consulting Engr., Chamber of Commerce Bldg., Richmond.

CHARLOTTE, N. C.—The Southern Power Co., of Charlotte, has decided to install a 10,000-HP. steam plant which will be used as an auxiliary to the company's present water power. It will be a steam turbine of the most modern make. Estimated cost, $500,000.

GAINESVILLE, GA.—See item under Water Supply—Irrigation.

JACKSONVILLE, FLA.—The City Council has indorsed the project of the Board of Bond Trustees to construct a new waterworks and electric power plant on the property which the trustees have recently purchased on the St. Johns River, near Phoenix Park.

OCALA, FLA.—The Electric Light Department will soon be in the market for the purchase of two 200-HP. horizontal tubular boilers. E. C. Bennett is Supt.

MONTGOMERY, ALA.—The City Council has decided to build an electric light plant in connection with the construction of the proposed garbage plant, which will be operated from steam furnished from the garbage plant.

NORTH BIRMINGHAM, ALA.—The Southern Equipment Co. will call for bids within 30 days for electrical and power plant equipment for four power stations. The company will soon be in the market also for the following apparatus: For 30 tons of trolley wire, 22 tons of feed wire, 25 miles of new 56-lb. rails with angle-bars and spikes, approximately 30 ground throw switch sets, 56-lb. rails, and 20,000 flat tie plates.

DECHERD, TENN.—Contract for the installation of an electric light plant has been awarded by the city to T. B. BOWSER, of Huntsville, Ala.

ERWIN, TENN.—Preparations are being made by the Nolachucky Power Co. for the construction of a dam across the Nolachucky River, one mile from Erwin. The dam is to be of reinforced concrete, 400 ft. long, 30 ft. high, and will develop about 3,500-HP. K. S. Finch, of Charlotte, N. C., is Pres.

NEW CONCORD, OHIO.—The village has retained S. S. Wyer, Consulting Engr., Harrison Bldg., Columbus, Ohio, to prepare detailed plans and specifications, and superintend the installation of a municipal electric lighting plant for the village. Bids for the work will be received until noon, May 3, by W. G. McKinney, Village Clk., from whom the specifications may be obtained. The plant will consist essentially of 50 series Tungsten street lamps with radial wave reflectors, distributing system for both street and commercial lighting, step-down transformers integrating Watt meters, one 40-KW. single-phase, 2,200-volt, 60-cycle alternator with direct-current exciter, switchboard with apparatus, 50-light constant current regulating transformer, 60-HP. producer gas engine, 60-HP. hard coal gas producer, and a fireproof brick and reinforced concrete engine and producer room.

BROWNSTOWN, IND.—See item under Water Supply-Irrigation.

DETROIT, MICH.—Preparations are being made by the Northway Motor & Mfg. Co. for the construction of a new plant here for the manufacture of automobiles, which will be equipped for electric motor drive throughout.

SAGINAW, MICH.—The Building Committee of the Board of Supervisors has decided to recommend the installation of an electric light plant for lighting the court-house and jail.

MORTON, MINN.—The Council has granted the Wherland Electric Light Co., of Redwood Falls, Minn., a 5-year franchise for the installation of an electric light system here.

JAMESTOWN, KAN.—See item under Water Supply—Irrigation.

COLBY, KAN.—See item under Water Supply—Irrigation.

COLDWATER, KAN.—See item under Water Supply—Irrigation.

PLAINVIEW, NEB.—Bids will be received by C. W. Lee, City Clk., until April 25 for the construction of an electric light plant and lighting system. E. F. Schurig, of Omaha, is Engr.

MILES CITY, MONT.—On April 4 the citizens voted to construct a municipal electric light plant.

KANSAS CITY, MO.—The Kansas City Ry. & Light Co., C. A. Harber, Supt., is contemplating improvements to its system, including the installation of a new generating plant. Estimated cost, $500,000.

HIGGINSVILLE, MO.—See item under Water Supply—Irrigation.

FORT LOGAN H. ROOTS (Argenta post-office), ARK.—Bids will be received by the Constructing Quartermaster, U. S. A., until May 10, for wiring buildings and constructing electric lighting system here.

SAN ANTONIO, TEX.—The San Antonio Gas, Electric & Traction Co. will equip its power plant with additional machinery. It is making extensions of its electric street railway system.

AUSTIN, TEX.—It is announced by J. C. Dumont, who is at the head of the company that recently entered into a contract with the city of Austin to reconstruct the dam across the Colorado River and install a hydroelectric plant at a total cost of $1,000,000 that machinery and material for the work has been ordered and that construction operations will be started about June 1. The remaining parts of the old dam will be strengthened and used. The new portion will be built of reinforced concrete. Noted on March 24.

HOUSTON, TEX.—A new electric power plant will be constructed for the proposed Rice Institute at Houston. The construction of the buildings that are to comprise this institution will be carried on simultaneously, it is announced, and the power plant will be in readiness by the time the other buildings are finished. Dr. Edgar Odell Lovett is Pres.

HEMPSTEAD, TEX.—Plans are being considered for the construction of an electric light plant here. Estimated cost, $10,000.

BOLEY, OKLA.—The Boley Light & Power Co. has been organized here with a capital stock of $5,000 for the purpose of installing an electric light and power plant. D. J. Turner, of Boley, is one of the incorporators.

*FORT SILL, OKLA.—We are officially advised that bids were received by Capt. David L. Stone, Constr. Q. M., on April 13, for electric light and power plant and electric lighting system at Fort Sill. The lowest bidders were: Item (1) Kraus Brass Mfg. Co., St. Louis, Mo., $7,780; item (2) McCay Engineering Co., Baltimore, Md., $10,997; item (3) General Electric Co. of Texas, Oklahoma City, $2,632; items (4 and 5) Ridgway Dynamo & Engine Co., Ridgway, Pa., $13,400; item (6) Westinghouse Electric & Mfg. Co., Baltimore, $[illegible]; item (7) E. C. D'Yarmett, Oklahoma City, $16,700; item (8) Urbauer-Atwood Heating Co., St. Louis, $2,450; item (9) same, $[illegible]; item (10) Evans, Almirall & Co., New York, $1,754; item (11) same, $2,647. Bid on item 7 was $100 in excess of the lowest bidder, but lowest bidder stipulated he would not accept certain items (item 7 was one) without item 2.

PLATEAU CITY, COLO.—J. W. Swift and C. L. Davis, of Palisade, Colo., are reported to be interested in a project to construct an electric power plant and furnish electricity in Plateau City and Collbran. It is proposed to build the plant on Big Creek and erect transmission lines to this town and to Collbran.

TRINIDAD, COLO.—The Colorado Ry., Light & Power Co. has awarded contract for a 4,000-KW. turbo-generator set to the WESTINGHOUSE ELECTRIC & MFG. CO., 429 17th St., Denver, Colo., to be installed in its new power house.

CLARKSTON, WASH.—The Clarkston Box Factory is considering enlarging its plant, which will be equipped for electrical operation.

SULTAN, WASH.—Eastern stockholders in the Washington Ry. & Electric Co., who are interested in a large power project located here, have taken over the interests of C. A. Hudson and J. C. Denny, of Everett; George D. Emery, of Seattle, and J. Kirkpatrick, of Butte, and have commenced work on the development of the water power of the Sultan River. The work will include the construction of a concrete dam, 120 ft. high, to conserve the waters, which, it is estimated, will generate 50,000 HP. The proposed project also includes the construction of a railway from Sultan Canyon to Sultan, a distance of about 17 miles. Electricity generated at the plant will be transmitted to various cities on Puget Sound, to be utilized for industrial purposes. Estimated cost, $3,000,000.

EPHRATA, WASH.—L. V. Wells has recently been granted a 45-year franchise to furnish electricity for lamps and motors in Ephrata.

UNION ORE.—We are officially advised that Louis C. Kelsey, Consulting Engr., 402 Dooly Bldg., Salt Lake City, Utah, has been employed to design and superintend the construction of a hydroelectric plant and waterworks system for Union. Estimated cost, $60,000.

ORLAND, CAL.—The Northern California Power Co. will soon commence work on the construction of a substation on E. F. Hale's ranch, southeast of here. Electricity for operating the station will be furnished by the Orland-Hamilton transmission line and the substation will supply energy to operate the pumps for irrigating land outside of the Orland irrigation system. Estimated cost of the station and equipment, etc., $4,000.

SANTA ANA, CAL.—The supervisors of Orange County are advertising a franchise to construct, maintain and operate electric light, power and transmission lines on certain designated highways in the county. Bids will be received until May 4.

MANTI, UTAH.—On April 2 the citizens voted to issue $25,000 of bonds for an electric light system and $15,000 for improvements to the water system. The city, it is reported, will purchase the plant of the Manti Light & Power Co., which will be enlarged and improved.

RUPERT, IDAHO.—The Secretary of the Interior has awarded contract to the STANDARD UNDERGROUND CABLE CO., of Pittsburg, Pa., for furnishing copper wire to be used in extending the electric transmission line to the towns of Rupert, Heyburn and Burley, on the Minidoka irrigation project, Idaho. The contract price amounts to $3,263, and the material is to be furnished f.o.b. cars at Perth Amboy, N. J.

GALT, ONT.—The offer of the Town Council of $16,500 for the poles and wires of the Gas Light Co. has been accepted.

VICTORIA, B. C.—Bids will be received until April 25, for the installation of a complete system of cluster street lights. Plans and specifications and forms of proposals can be obtained from W. W. Northcote, Purchasing Agt., City Hall, Victoria.

MORELLA (Michoacan), MEX.—George Pinson and associates will erect a large hydroelectric plant in this state. The water of the Zitacuaro River will be used to operate the plant. Transmission lines will be constructed at Morella and a number of other towns and industrial centers. Mr. Pinson has made application to the Federal Government for a concession for the proposed enterprise.

ALVARADO (Vera Cruz), MEX.—The City Council has awarded a contract to LARA & LEAL, of Mexico City, for the installation of an electric light plant here.

GUADALAJARA, MEX.—Manuel R. Uruchurtu will install a hydro-electric plant on the Tequila River, in this state. He has applied to the Federal Government for a concession for the proposed enterprise.

BRIDGES.

(denotes that this work is advertised in Engineering News.)*

NEW YORK, N. Y.—Bids are asked until 2 p. m., April 28, by Kingsley L. Martin, Commr. of Bridges, for grading and paving Attorney St. at the Williamsburg Bridge.

JAMESTOWN, N. Y.—The citizens have voted to construct two bridges over Chautauqua Lake in Jamestown. Estimated cost, $50,000.

TROY, N. Y.—Bids for constructing a reinforced-concrete arch bridge on Mill St., near its junction with Campbell Highway, and widening and straightening the street at that point, will be received by the Board of Contract and Supply until April 22. James M. Riley is Secy.

*SYRACUSE, N. Y.—Bids were received as follows by the Board of Contract and Supply on April 11 for the construction of a reinforced-concrete arch bridge over Onondaga Creek at Dickerson St. C. J. Sullivan, $8,055; Frank S. Sposato, $9,451; C. T. Hookway, $7,111; H. S. Moore, $10,999; John Young, $7,886; Walter Bradley, $8,280; Wells, Houghton & Co., $9,300.

MILLTOWN, N. J.—We are officially advised that the FERRO-CONCRETE CO., Union Trust Bldg., Harrisburg, Pa., has been awarded contract for a 65-ft. × 20-ft. roadway reinforced-concrete bridge over the Raritan River here, at $4,995 for reinforced-concrete arch. Bids were received on a steel bridge with wooden floor, steel bridge with concrete floor and reinforced-concrete arches.

MAURICETOWN, N. J.—The Cumberland County Board of Freeholders on April 12 awarded contract for rebuilding the steel bridge over the Maurice River at Mauricetown to HARRY HANKINS and SAMUEL CAMPBELL, of Bridgeton, the lowest of three bidders, at $6,842.

YORK, PA.—Bids are asked until May 2 by the County Commissioners for a general overhauling of the 27 iron bridges in the county, the work including two coats of paint.

BEAVER, PA.—The Beaver County Commissioners will expend about $8,000 soon to improve the Ohio River bridge, which crosses that river between Rochester and Monaca.

PITTSBURG, PA.—Bids are asked until noon, May 3, by R. J. Cunningham, County Controller, for superstructure and masonry of bridge No. 1, Thompson's Run, Turtle Creek Borough.

GLENDON, PA.—Bids are asked until 10 a. m., April 29, by the Northampton County Commissioners, Easton, Pa., for the construction of a steel highway bridge, etc., at Glendon.

WASHINGTON, PA.—Bids are asked by John H. Moffitt, County Controller, Washington, until noon, April 25, for the construction of several bridges.

LUKE, MD.—We are officially advised that bids were opened on April 16 by Allegany and Mineral Counties for a steel and concrete bridge over the Potomac River between Luke and Piedmont, W. Va. Contracts have been awarded as follows: For first and second spans, to FARRIS BRIDGE CO., 204 Diamond St., Pittsburg, Pa., at $9,881; for concrete span and abutment, to NELSON-MERYDITH CO., Chambersburg, Pa., at $6,470. D. P. Le Fevre is Engr. of Roads for Allegany County, Cumberland, Md.

PARKERSBURG, W. VA.—J. H. Newell is completing arrangements, it is reported, for the proposed bridge to Belpre, Ohio, 3,000 ft. long, two river piers. Estimated cost, $450,000.

GREENVILLE, S. C.—The city has voted $200,000 of bonds for the construction of a bridge across Reedy River and street and sidewalk paving.

MONTICELLO, MISS.—Bids are asked by Lawrence County until May 2 for the construction of steel bridge over Silver Creek on Mt. Carmel Road. W. H. Speights is Clk.

MORRISTOWN, TENN.—Hamblen and Cocke Counties have voted $3,000 each for the construction of a bridge at Inman's Ferry across Nola Chucky River along roads new being constructed.

MOUNTAIN VIEW (Knoxville post-office), TENN.—The city has awarded contract to J. B. McTYE, of Knoxville, to construct concrete culvert.

PARIS, KY.—Bourbon County will expend $42,000 for constructing and repairing bridges and rebuilding and repairing roads.

JACKSON, KY.—The Kentucky River Hardwood Co., J. W. Johnson, Mgr., has awarded contract to the FARRIS BRIDGE CO., 204 Diamond St., Pittsburg, Pa., for the construction of a concrete and steel logging railroad bridge across Kentuck River near mouth of Quicksand, about 3½ miles from Jackson.

DAYTON, OHIO.—Bids will be received until April 22 by the Department of Public Service, J. C. Ely, Dir., for furnishing material and constructing a steel hand-power lift bridge over the Miami and Erie Canal basin extension canal at Webster St., to have a wooden floor, roadway 24 ft. wide clear width. F. J. Cellarius is City Engr.

CHILLICOTHE, OHIO.—Bids are asked until April 25 by Robert D. Alexander, County Audr., for labor and materials for building a reinforced-concrete arch bridge over Bulls Run, about two miles from Hallsville in Colerain Township.

STEUBENVILLE, OHIO.—Bids are asked until 1 p. m., May 6, by the County Auditor for the construction of the substructure and superstructure of bridge No. 26, Island Creek Township.

CLEVELAND, OHIO.—Bids are asked until 11 a. m., May 11, by the County Commissioners of Cuyahoga County for the construction of bridge work per Report No. 2598, concrete culvert and conduit, Bradley Road, Dover Township; Report No. 2396, concrete bridge, Miles Ave., No. 3 road, Solon Township, in accordance with the form of contract and specifications to be furnished by Frank R. Lander, County Surv.

PRINCETON, IND.—Bids are asked by the Commissioners of Gibson County until 11 a. m., May 4, for the construction of eleven steel bridges and 14 reinforced-concrete bridges. W. T. Roberts is County Audr.

PERU, IND.—Bids are asked by the Commissioners of Miami County until noon, May 5, for the construction of 20 bridges. Charles Griswold is County Audr.

WINAMAC, IND.—The Commissioners of Pulaski County have ordered plans for the construction of a new bridge across the Tippecanoe River near Buffalo. The structure will be of steel 389 ft. long. Bids will be asked as soon as the plans are completed and approved.

*ST. JOSEPH, MICH.—We are officially advised that the city received bids at the office of M. Weber, City Clk., on April 11, for the construction of the superstructure for a swing bridge on Wayne St. over the Morrison Channel and the Michigan Central Ry. tracks. The bids follow: AMERICAN BRIDGE CO., Chicago, $27,864 (awarded contract); Joliet Bridge & Iron Co., Joliet, Ill., $29,454; King Bridge Co., Cleveland, Ohio, $30,900; Strobel Construction Co., Chicago, $31,800; Wynkoop, McGormley & Co., Toledo, Ohio, $35,817. Total length of bridge about 75 ft.; two sidewalks, 5-ft. clear; two electric car tracks; live load per lin. ft. of track, 1,800 lbs.; sidewalks, 80 lbs. per sq. ft.; weight of iron and steel, about 250 tons. W. M. Hughes, Postal Telegraph Bldg., Chicago, is Engr.

STREATOR, ILL.—Contract for constructing the bridge at Bridge St., bids opened on April 4, has been awarded to the MILWAUKEE BRIDGE CO., of Milwaukee, Wis., at about $35,000. Ralph Modjeski, of Chicago, is Engr.

NEW LONDON, WIS.—Bids will be received until 8 p. m., May 3, at the office of the City Clerk, for furnishing material and the construction of a concrete bridge on the Embarrass River at St. John's Pl. Part of plans and specifications on file in the City Clerk's office. Bidders expected to furnish their own plans and specifications. N. R. Deming is City Clk.

HUTCHINSON, KAN.—The City Commission on April 1 awarded contract for a 50-ft. span concrete arch bridge across Cow Creek at Ave. A and Main St., to HELMERS & FITEL, of Minneapolis, Minn., at about $15,000.

WILLARD, KAN.—The Board of County Commissioners, Topeka, F. B. Sims, Chn., will receive bids until April 22 for constructing a 188-ft. steel span on the south end of the bridge across the Kansas River near here. S. G. Zimmerman is County Clk.

LEWISTOWN, MONT.—The County Commissioners have awarded contract for putting in a steel and concrete bridge at Fullerton to the SECURITY BRIDGE CO., of Minneapolis, Minn., at $8,000. The bridge will have a span of 150 ft. and will be strong enough to support the heavy traction engines now in use.

DALLAS, TEX.—Dallas County has voted $600,000 of bonds for the construction of a viaduct and bridges.

SHERMAN, TEX.—Bids will be received until May 2 by Barney C. Kreager, City Secy., for constructing a concrete arch or steel span with concrete abutments, to have a minimum span 40 ft. in clear and a width of 22 ft. in clear.

OKLAHOMA CITY, OKLA.—Bids will be received until April 30 by J. W. Riley, County Clk., at Oklahoma City for furnishing material and constructing four steel bridges in this county.

WALTERS, OKLA.—The County Commissioners on April 6 awarded contract for the construction of a new steel bridge over Castle Creek, 1½ miles south of here, to the MIDLAND BRIDGE CO., Kansas City, Mo., at $3,425.

CASTLEROCK, WASH.—The INTERNATIONAL CONTRACTING CO., of Seattle, has secured contract for constructing a 308-ft. steel bridge, with 20-ft. roadway, over Cowlitz River at Castlerock at $22,987. Bids were opened on April 5.

SHERLOCK, WASH.—The Commissioners of Pierce and Thurston Counties have awarded contract for constructing a bridge over the Nisqually River to BERTELSON & SONS at $8,480.

LOS ANGELES, CAL.—The Board of Public Works has been directed to instruct the City Engineer to prepare plans for bridge and approaches across the Arroyo Seco at Ave. 43.

The J. T. HALL-MARVIN CO., Pacific Electric Bldg., Los Angeles, has been awarded contract by the city for a reinforced-concrete bridge on Eagle Rock Road, at $10,700.

TEHAMA, CAL.—The Tehama County Board of Supervisors on April 8 awarded contract for the construction of a bridge over the Sacramento River at Tehama to the PACIFIC CONSTRUCTION CO., of San Francisco, at $182,963. Other bidders were: Mathews Construction Co., of San Francisco, $192,280; Cotton Bros.' Co., of Oakland, $189,373; Healey-Tibbetts Construction Co., of San Francisco, $184,000; Hyde, Harden & Co., of San Francisco, $168,400; Burrell Bridge Construction Co., of Oakland, $196,837; American Construction Co., of San Francisco, $198,500; Clark & Henery Construction Co., $187,693; Murphy & Elwood Co., of Oakland, $188,220; Murphy, Frazier & Co., of San Francisco, $187,950; Thompson Bridge Co., of San Francisco, $192,500.

BRANTFORD, ONT.—Bids will be received until April 22 by Joseph Minshall, Alderman, care City Clerk, for constructing a reinforced-concrete bridge 246 ft. long, 64 ft. wide, across the Canal on Market St., to consist of a 60-ft. arch span and approaches, a 46-ft. girder span, all of reinforced concrete. T. Harry Jones is City Engr.

BUILDINGS.

(denotes that this work is advertised in Engineering News.)*

NASHUA, N. H.—The Nashua Mfg. Co. is to build a storehouse on the old circus ground west of the Nashua Boat Club-house, and the earth is already being removed. The storehouse will be 200 × 100 ft., eight stories, of brick and probably mill construction. It will be used wholly for raw cotton and its capacity will be about 18,000 bales. The cotton will be blown across the river in steel tubes from the storehouse to the mills and a foot bridge will cross the river to communicate with the mills, all of which are on the south side of the river directly opposite the site of the new storehouse. There will be side tracks to bring cotton to the storehouse.

PORTSMOUTH, N. H.—Bids are asked by R. C. Hollyday, Ch. of Bureau of Yards and Docks, until 11 a. m., May 21, for rebuilding and fireproofing Building No. 20, U. S. Navy Yard, Portsmouth, N. H.

CHICOPEE, MASS.—Bids are asked by Joseph T. Momnie until 8 p. m., April 25, for constructing the George L. Taylor School, for which $50,000 has been appropriated. The building will have twelve rooms. George P. B. Alderman is Arch. The bidders must be residents of Chicopee.

HARTFORD, CONN.—The Board of Fire Commissioners, Horace B. Clark, Pres., has invited architects to submit drawings, not later than noon, May 3, for a fire engine house, to be erected on Windsor Ave. These drawings shall consist in first and second floor elevations, front and side elevations and perspective.

The Northwest School District, R. L. Russell, Chn., has voted to erect an addition to the present school building at a cost of about $75,000. William D. Johnson, 26 State St., is Arch.

WATERBURY, CONN.—Bids will be received until 7.45 p. m., May 2, for the construction of a 6-room addition, including all carpenter, heating, lighting and electrical work, to the Russell School. Plans and specifications with E. E. Benedict, Arch., 51 Leavenworth St., Waterbury. Plans to remodel the Meriman School have been received from L. A. Walsh, 51 Leavenworth St.

FORT TERRY (New London, Conn., post-office), N. Y.—Bids are asked by Capt. F. T. Arnold, Constr. Q. M., New London, until 10 a. m., May 13, for the construction, plumbing, heating, electric wiring and fixtures of one guard-house and one quartermaster's storehouse at Fort Terry, N. Y.

ROCHESTER, N. Y.—Gordon & Madden, Archs., 300 Sibley Bldg., have completed plans for a 5-story hospital building to be erected on West Ave., for the City Hospital. Henry G. Danforth is Pres., 206 Powers Bldg.

NEW YORK, N. Y.—Bids are asked by C. B. J. Snyder, Supt. School Bldgs., Dept. of Education, until 11 a. m., April 25, (1) for alterations, repairs, etc., at Public Schools Nos. 16, 19, Annex 22, 23, 33, 37, 49, 50, 51, 59, 71, 122, 126 and Eastern District High School, Boro. of Brooklyn; (2) for alterations, repairs, etc., at Public Schools Nos. 6, 18, 49, 53, 59, 70, 73, 74, 76, 77, 82, 96, 116, 117, 135, 158, 183 and 190, Boro. of Manhattan; (3) for item (a), installing drinking sink, wash basin, etc.; item (b), installing heating apparatus; item (c), installing electric equipment for the office of the Deputy Superintendent of School Buildings, at Public School No. 9, on the southerly side of East 139th St., Boro. of The Bronx; (4) for repairs at Athletic Field, on Munson and Orchard Sts., and the East River Front, Astoria, Long Island City, Boro. of Queens; (5) for alterations, repairs, etc., at Curtis High School Athletic Field, Curtis High School and Public Schools Nos. 1, 14, 17, 18, 20 and 23, Boro. of Richmond; (6) for furnishing and delivering materials for the use of mechanics (heating division, Building Bureau), in the public schools of the City of New York, in the Boroughs of Manhattan, Brooklyn, The Bronx, Queens and Richmond.

The Roman Catholic Church of St. Peter and St. Paul on Brook Ave., the Bronx, is to have a new parochial school. Michael J. Garvin, Arch., 3307 Third Ave., drew the plans some time ago, and they were filed lately. The school will be built of brick and stone, having a frontage of 85 ft. and a depth of 135 ft. The building is to be four stories in height and the cost is estimated at $140,000. The Rev. William H. Murphy is Rector.

NEW YORK, N. Y.—Plans have been filed for a 12-story office building to be erected at the southeast corner of Madison Ave. and 43d St., for Charles & Co., at a cost of $175,000. The building will have a frontage of 25 ft. on Madison Ave. and 100 ft. on the street. The facade will be of limestone, terra-cotta and brick. Charles I. Berg is Arch., 571 Fifth Ave.

Another 12-story building will be erected, plans for which are now being prepared by John B. Snook Sons, 73 Nassau St. The proposed building will cover a site containing an area of 7,600 sq. ft., comprising the residence property known as 139 and 141 Madison Ave. and 23 and 25 East 31st St., surrounding the northeast corner of the thoroughfares mentioned. A holding company, known as the Associate Owners, has been formed for the purpose of making the improvement, which will face the Madison Ave. Baptist Church.

Plans have been filed for a 2-story brick garage and store, to be erected at the northeast corner of Broadway and 95th St., with a frontage of 125.10 ft. on Broadway and 121.4 ft. on the street, for the Real Construction Co., H. D. Baker, Pres. L. F. J. Weiher, 271 West 125th St., Arch., places the cost at $150,000. The ground is owned by Eugene Higgins, and was leased by him last year for 999 years to Max Marx and others.

The NEW ENGLAND GRANITE WORKS, 489 Fifth Ave., has secured a contract for furnishing the granite to be used in the construction of the proposed Bankers Trust Co. building, 32 stories, on the northwest corner of Wall and Nassau Sts. The contract involves about $600,000, and deliveries will begin in November. The granite will weigh 11,000 tons. The general contract has been let to MARC EIDLITZ & SON, 489 Fifth Ave.; Trowbridge & Livingston, 527 Fifth Ave., are Archs.

NEW YORK, N. Y.—Sol Brill, William Fox, T. D. Sullivan and others of the Phoenix Amusement Co., will build a 3-story theatre, 100 × 125 ft., on the 100 × 150-ft. northeast corner of Amsterdam Ave. and 149th St., from plans by Thomas W. Lamb, Arch., 224 Fifth Ave. It will cost $150,000 and will seat 1,800 persons. The site was leased for 84 years at $840,000 from L. W. and Edward Morrison and Alice M. Ulman through Parish, Fisher & Co.

Plans have been filed for enlarging Holy Trinity Roman Catholic Church, of which the Rev. M. J. Considine is Rector, at 212 to 216 West 83d St., by an extension, which is to be used as a sanctuary. The cost is estimated at $100,000.

Plans have been completed to enlarge the Jeanne d'Arc Home at 251 and 253 West 25th St., for friendless French girls. The adjoining house, No. 255, was purchased a few days ago, and the home now has a site measuring 61.1 × 98.9 ft., which is to be immediately improved with a building from plans by Daus & Otto, Archs., 130 Fulton St. It will be a 7-story structure, and will cost about $85,000. It will contain a chapel and bedrooms accommodating 130, which is nearly three times the capacity of the present building. Rev. T. Mucher, Rector of St. Vincent's Church, 23d St., is Pres.

Plans have been filed for a 5-story apartment house to be erected on the south side of 178th St., 100 ft. west of Wadsworth Ave., for the Vanderbilt Tile Co., George W. Vanderbilt, Pres. The building will have a frontage of 50 ft. and a depth of 87.7 ft. The cost is estimated at $55,000 by Neville & Bagge, Archs., 217 West 125th St. The building will accommodate 21 familes.

NEW YORK, N. Y.—A 12-story apartment house, to contain suites for 38 families, is to be built at the southeast corner of Riverside Drive and 100th St., for the West Side Construction Co. It will cost $800,000. Plans are being made by W. L. Rouse and L. A. Goldstone, Archs., 12 West 32d St.

Plans have been filed for a 6-story apartment house, with a frontage of 100 ft., and to contain suites for 43 families, and to be built from designs by B. W. Levitan, Arch., 20 West 31st St., at the southeast corner of St. Nicholas Ave. and 174th St. Cost, $175,000. The Stratford-Avon Building Co., of which Lawrence Davies is head, is owner.

A 12-story commercial building, to cost about $325,000, will be erected at 373 to 377 Pearl St., on a plot, 63 × 98 ft. Goldwin, Starrett & Van Vleck, Archs., 103 Park Ave., are making plans for the proposed building.

Plans have been filed by Neville & Bagge, Archs., 217 West 125th St., for a 6-story apartment house, to cost $225,000, which will be erected at the southeast corner of Broadway and 150th St., for the Cascade Realty Co.

NEW YORK, N. Y.—Bids are asked by C. B. J. Snyder, Supt. of School Bldgs., Dept. of Education, until 11 a. m., May 2, (1) for alterations, repairs, etc., at Public Schools Nos. 1, 6, 11, 12, 14, 15, 45, 47, 54, 58, 111, and Training School for Teachers, Boro. of Brooklyn; (2) for alterations, repairs, etc., at Public Schools Nos. 11, 26, 28, 32, 33, 45, 48, 51, 56, 58, 67, 69, 84, 87, 94, 141, De Witt Clinton High School and High School of Commerce, Boro. of Manhattan; (3) for filing cabinets for various schools in the Boro. of Manhattan; (4) for alterations, repairs, etc., to Public Schools Nos. 5, 6, 9, 11, 15, 33, 39, 46, 52, 59, 83, Jamaica Training School and Parental School, Boro. of Queens.

CLARENCE, N. Y.—The Automobile Club of Buffalo is having plans prepared for a club-house which it will erect on lands recently purchased at Clarence, N. Y. Full details are not yet decided.

BUFFALO, N. Y.—The Erie R. R. Co. has had plans prepared for remodelling its 3-story brick passenger station and office building at Michigan and Exchange Sts. Charles A. Brunn, Supt., Michigan and Exchange Sts.

Esenwein & Johnson, Archs., 777 Ellicott Sq. Bldg., are preparing plans for a stone and brick residence, old English type of architecture, to be erected at Soldiers Pl., Bird and Windsor Aves., for E. M. Statler, Statler Hotel. Estimated cost, $50,000.

The Carnival Court Concessions Co. will erect a Casino building on the east side of Main St., Luna Park, Buffalo, of frame and concrete construction. C. A. Johnson is Mgr., 601 Mutual Life Bldg.

A 7-story and basement warehouse, 46 × 132 ft., of brick and steel, is to be erected at Washington and Mohawk Sts., by William H. Hotchkiss for Gerber Nott & Co., lessees. The architect has not been selected.

The German Hospital, William F. Kasting, Pres., 700 Ellicott St., will build an addition to its hospital, 40 × 95 ft., three stories and basement, brick and structural steel, at Jefferson and Genesee Sts. George J. Metzger, Archs., 19 West Huron St., is preparing plans.

*BAYONNE, N. J.—Following are the bids received by the Board of Education, Avenue C and 26th St., Bayonne, N. J., on April 14, for all labor and material necessary for the construction of Public School Building No 11, between West 23d and West 24th Sts., in the City of Bayonne, N. J., and in accordance with plans and specifications by Robert C. Hutchinson, Arch., 126 Liberty St., New York. Also for all labor and materials necessary for the construction of Public School No. 12, between West Tenth and West Eleventh Sts., in the City of Bayonne, N. J., and in accordance with plans and specifications by S. E. Gage and Donald G. Anderson, Archs., 3 Union Sq., New York. W. J. Tomlin is Secy., Avenue C and 26th St., Bayonne, N. J.:

School No. 11—General contract: P. J. Brennan Co., $145,000; W. H. Walters, $154,500; Luke A. Burke & Son, $140,000; Charles H. Peckworth, $132,752; American Corrugated Steel Co., $147,236; Hynd Bros., $145,227; Ahlfeld Bros., $128,874; W. H. & F. W. Kane, $141,627; Potter & Fobisher, $147,946; J. F. Walsh, $140,940. Heating and ventilating: Ralph B. Schmidt, $22,565; John T. McLaughlin, $24,373; N. Y. Engineering Co., $21,540; Timmerman & Co., $22,396; Storms & Co., $19,861. Plumbing: Evans Almiral, $6,075; George Dillon, $8,300; Ralph B. Schmidt, $9,927; Jaehringst & People, $10,130.

School No. 12—Wills & Marvin, 1270 Broadway, New York, $120,989; John Milnes Co., $144,500; O'Connell & Hanna, Delancey St., New York; $112,900; W. H. Walters, $140,000; Potter & Fobisher, $132,907; L. A. Burke & Sons, 25 West 42d St., New York, $127,000; W. H. & F. W. Kane, $138,137; C. H. Peckworth, 415 Hudson St., New York, $119,829; Ahlfeld Bros., $126,466; P. J. Brennan & Son, 624 Madison Ave., New York, $119,500; Gillies-Campbell Co., 1 Madison Ave., New York, $136,494; Hynd Bros., 30 Church St., New York, $129,252: J. F. Walsh Construction Co., 1 Madison Ave., New York, $128,940.

MONT ALTO, PA.—Bids will be received by the Commissioner of Health of the Commonwealth of Pennsylvania at his office, 1900 Race St., Philadelphia, until 5 p. m., April 29, for the furnishing of all labor and materials necessary for the construction of the following buildings of the Pennsylvania State South Mountain Sanitarium, near Mont Alto, Franklin County, Pa., in accordance with the plans and specifications on file at the office of the Commissioners, in Harrisburg, Pa.: 15 cottages, pavilion, alterations of and additions to infirmary, nurses' and physicians' dining building at camp, children's building, nurses' and physicians' dining building at infirmary, alteration of and addition to laundry building, alterations of and additions to main dining building.

ALLENTOWN, PA.—The School Board has decided to erect a high school building to cost $300,000.

PHILADELPHIA, PA.—A garage is to be built on the site of the old dwellings at the southwest corner of Market and 23d Sts., which are owned by Felix Isman. Plans for the new building have been completed by Stearn & Castor, Archs., Stephen Girard Bldg. It will be three stories high, will measure 120 × 106 ft. to Ludlow St., and will cost $100,000.

The Protestant Episcopal Church of the Messiah contemplates the erection of a church to be built at the northeast corner of Broad and Federal Sts., and has commissioned Duhring, Okie & Ziegler, Bailey Bldg., to plan the new church. This will be a clerestory structure of ornamental brick, in the Italian Renaissance style, and will cost about $50,000. The old church building will be remodeled into a parish house, from plans by the same architects.

Plans are in preparation by C. A. Remington for eight 2-story flat houses, 20 × 60 and 20 × 68 ft., to be built on the tract at the southwest corner of 41st St. and Baltimore Ave., by Alexander Wilson, Jr., 42d and Chestnut Sts., at a cost of $7,500 each, or $60,000. The same owner is taking estimates from sub-contractors for eleven 2-story flat houses, 20 × 69 ft. each, to be built at the southeast corner of 38th and Locust Sts., at a cost of $82,500.

The Board of City Trusts has decided to erect 76 houses and four stores, the latter being under dwelling apartments in the southern section of the city. The Board will also construct a storage plant for coal, capable of holding 5,000 tons, at 20th St. and Oregon Ave. Both these operations are for the Girard Estate, which already owns many hundred modern dwellings in this section. The new dwellings will include 22 2-story houses on Garnet St., between Porter and Shunk; 24 3-story houses on 20th St., between Porter and Shunk, and 34 2-story houses on Shunk St., between 18th and 20th Sts. At the corner of 18th and Shunk Sts., there will be a building containing four residential flats and four stores. Designs for the new buildings have been prepared.

PHILADELPHIA, PA.—Plans for the erection of a 6-story store and loft building at 821-23 Arch St., for Max M. Sladkin are being drawn by Kirk W. Peuckert. It will cost about $60,000.

Edwin F. Durang & Son, 1200 Chestnut St., are designing a $50,000 parochial school to be built at 54th St. and Cedar Ave. for the Roman Catholic Church of the Transfiguration. It will be three stories high.

Contracts have been awarded by the Gloucester Ferry Co., foot of South St., for a new ferry house, to be built on the site of the present one, at the foot of South St., to JAMES F. McCLOSKEY, 210 New St., for the superstructure and J. E. BRENNEMAN, 1523 South Front St., for the substructure and ferry racks. The ferry house, which will cost approximately $50,000, will be 81 × 135 ft. in dimensions, two stories high, arranged for double-deck and future connection with the elevated railroad. The building will be of steel frame construction, with galvanized iron sides.

BALTIMORE, MD.—Application has been made for permission to begin work on the new theatre to be erected near the corner of Lexington St. and Park Ave. by the New Theatre Co. The structure will be three stories high and will cost $100,000. There will be an entrance on Lexington St. about where Magary's store is now located, and two entrances on Park Ave. It will be built around two sides of the Putts Co.'s property, on the corner. The building will have a frontage of a little more than 20 ft. on Lexington St., with a depth of 131 ft. to Clay St. On Park Ave. the front will be 77 ft., with a depth of 134 ft. Charles Whitehurst will be the Mgr. of the theater.

Construction of the proposed Union Station of the Pennsylvania R. R. Co., on North Charles St., will soon begin. The contract has been awarded to the J. HENRY MILLER CO., INC., 334 North Charles St. The excavations for the foundations are being made. When these are completed the firm will begin the work. It is expected that it will take about 18 months to make the improvements. The station will be 277 ft. long and 63 ft. wide, with four stories, including the train platform. It will face south, or toward Jones' Falls, and will extend from Charles St. nearly to St. Paul St. On the front will be a concrete walk for passengers, who will enter by three approaches in the center and on the street level. On this floor will be the main waiting room, the lunch room, telephone booths, public telegraph booths, ticket offices and the trainmaster and dispatchers' rooms. The upper floors will be for the working force of the company. It is estimated that the building will cost about $700,000 to finish and equip. It is to be built of granite and stone, with a concrete base beneath. The trains will be reached by stairways and elevators, obviating the necessity of patrons crossing the tracks in reaching the cars. Alexander Shand, Philadelphia, is Ch. Engr., P. R. R. Co.; Gamble Latrobe is Gen. Agt. for the contractor.

WASHINGTON, D. C.—Bids are asked by the District Commissioners until 2 p. m., April 21, for constructing an addition and making alterations to Bennings School No. 48, Square No. 5053, Anacostia Road, N. E.; constructing a 4-room addition to the Lovejoy school building, No. 124, northwest corner 12th and D Sts. N. E., and for constructing a 2-room school building, No. 161, on Bunker Hill Road, Brookland, D. C.

The Wachovia Bank & Trust Co. is having plans prepared by Milburn, Heister & Co., Archs., Home Life Bldg., Washington, D. C., for the enlargement of its bank and office building. The first contract has been awarded to the CENTRAL CAROLINA CONSTRUCTION CO. Heating will be let separately.

FORT MONROE, VA.—Bids are asked by Capt. Ernest R. Tilton, Constr. Q. M., until 10 a. m., May 11, for the construction, including plumbing and electric wiring and fixtures of a detachment barracks at Fort Wool, near Fort Monroe, Va.

WARRENTON, VA.—We are officially advised that the city will erect a city hall, engine house, and police station after plans being prepared by Milburn, Heister & Co., Home Life Bldg., Washington, D. C. D. P. Wood is Chn. of the Building Com.

DURHAM, N. C.—We are officially informed that plans are about completed by Kendall, Taylor & Co., Archs., 93 Federal St., Boston, Mass., for two buildings to be erected at the Watts Hospital, Durham, N. C., which will cost about $75,000. Construction will be of brick and concrete with fireproof partitions.

GREENVILLE, N. C.—The County Commissioners have selected Milburn, Heister & Co., Archs., Home Life Bldg., Washington, D. C., to prepare plans and specifications for a county court-house to cost $75,000. Bids will be called for as soon as plans and specifications are completed.

SHEFFIELD, ALA.—We are advised that E. G. Rust, Pres. Sheffield Coal & Iron Co., has employed Milburn, Heister & Co., Archs., Home Life Bldg., Washington, D. C., to prepare plans for a $40,000 residence. Plans will be finished May 1.

MEMPHIS, TENN.—ADAMS & ALSUP, of Chattanooga, Tenn., have been awarded the contract to build the West Tennessee State Normal at Memphis. The building is to cost about $100,000.

LOGAN, OHIO.—It has been decided by the Board of Education to erect three school buildings at a cost of approximately $85,000.

CLEVELAND, OHIO.—We are officially advised that the matter of an interurban station, referred to last week, is in the hands of a committee of which S. H. Halle is Chn. This matter comes up through the efforts of the Merchants' Board of the Chamber of Commerce of this city. The outcome of the agitation resulted in the appointment of a committee of five, composed of S. H. Halle, of the Halle Bros. Co.; N. L. Dauby, of the May Co.; G. H. Dahl, Comr. representing the city of Cleveland; H. J. Davies, representing the Cleveland Railway Co., and E. W. Moore, Pres. of the Lake Shore Electric Ry. Co., Electric Bldg., representing the Interurban Railways. This committee was appointed for the purpose of recommending a site and a plan for financing the enterprise.

ALLIANCE, OHIO.—We are officially advised that bids were received by the Board of Education until noon, April 12, for erecting a High School building, 60 × 200 ft., to cost about $70,000. The building will be fireproof, of brick, terra-cotta and reinforced concrete construction; also the Ward School. The contract for the former has been let to MILBOURNE & BRO., of Canton, Ohio, and for the latter to SIMON SMALL & SON, of Mansfield, Ohio. Richards, McCarty & Bulford, The Ruggery, Columbus, Ohio, are Archs.

COLUMBUS, OHIO.—The Francis Bros. Co., 165½ North High St., are the lowest bidders for the construction of the proposed tuberculosis hospital, the bid being $73,840. The Erner-Hopkins Co. is the lowest bidder for the power plant. It bid $5,465. The contract will be let about May 1.

Plans and specifications have been completed by the engineering department of the Pennsylvania R. R. Co. for the business block to be erected on the west side of the High St. viaduct. The construction will include a large amount of grading and masonry. The time for receiving bids will be fixed later. Thomas Rodd, Pittsburg, is Ch. Engr. Pennsylvania Lines West of Pittsburg.

The Ohio House of Representatives has passed the general appropriation bill carrying an appropriation of $100,000 for a woman's prison and $150,000 for a dining room at the Ohio penitentiary.

Bids are asked by the Board of Education until May 9 for constructing the West Broad St. and the Heyl Ave. schools, and for two additions to the Reeb Ave. school. The construction will be of brick, stone and iron and will cost $238,000. The buildings will be two stories high. H. P. Judd is Secy.

*KOKOMO, IND.—Bids are asked until 3 p. m., May 20, by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the construction, complete (including plumbing, gas piping, heating apparatus, electric conduits and wiring), of the U. S. post-office at Kokomo, Ind.

CRAWFORDSVILLE, IND.—The School Board has employed Patton & Miller, Archs., Hartford Bldg., Chicago, to make plans for the construction of a school building. Bids will be in order as soon as plans are completed.

BROWNSTOWN, IND.—Commissions of Jackson County will soon ask for bids for remodeling the court-house.

HAMMOND, IND.—The Hammond, Whiting & East Chicago Electric Ry. Co. will soon ask for bids for the construction of a joint passenger and freight station. A. L. Drum & Co., Chicago, is Gen. Mgr.

MONROE CITY, IND.—John Hanna, Trustee, has ordered plans on which to ask for bids for the erection of a 3-story brick schoool building. Estimated cost, $50,000.

OAKLAND CITY, IND.—The School Trustees are preparing to ask for bids for the construction of a school on the site of the building recently burned.

HUNTINGTON, IND.—The Fort Wayne & Wabash Valley Traction Co. has ordered plans on which bids will be asked for the construction of a combined passenger and freight station. C. D. Emmons, Fort Wayne, is Gen. Mgr.

COLUMBUS, IND.—The Commissioners of Bartholomew County have decided to remodel and enlarge the county jail. Plans will be ready for bidders later.

BLOOMINGTON, IND.—The City Council is prepared to receive bids for the construction of a city hall and a fire engine house.

INDIANAPOLIS, IND.—St. Marie's Roman Catholic Parish, Rev. Anthony Schidler, Rector, has ordered plans on which to ask for bids for the erection of a fine church at the corner of Vermont and New Jersey Sts.

SULLIVAN, IND.—Bids are asked by the City Council until May 3 for the construction of a city hall and fire department headquarters.

DETROIT, MICH.—P. Dederich, Arch., 1307 Chamber of Commerce Bldg., Detroit, has let the following contracts for the proposed Roman Catholic Church of Our Lady of Sorrows, 67 × 134 ft., Rev. Fr. Henry Syonen, Pastor, 18 Catharine St.: Masonry, to FRANK DE DECKER, 851 Field Ave.; carpentry, to CHARLES GODDEERIS, 98 Shepherd Ave.; slate roofing and plumbing, to V. DeHUNDT, 23 Maple St.; plastering, to H. CHAEFER & SON, 118 Macomb Ave.; painting, to A. STENZLER, 1103 Michigan Ave.

George D. Mason, Arch., 80 Griswold St., Detroit, has prepared plans and specifications for an 8-story and basement warehouse, 296 × 120 ft., for D. M. Ferry & Co., 84 Monroe Ave., to cost $100,000. Construction will be of pressed and stock brick, Bedford cut stone, with composition roof, metal skylight and cornice, structural iron and electric fixtures.

Baxter & O'Dell, Archs., 1024 Hammond Bldg., Detroit, have prepared plans and specifications for a block of eight stores, 120 × 60 ft., for J. E. Scripps Corporation, Wm. E. Scripps, Secy., 65 Shelby St. Press and stock brick, Bedford stone, composition roof, galvanized iron skylight and cornice, structural iron and electric fixtures will be used in construction.

W. S. Joy & Co., Archs., 602 Ferguson Bldg., Detroit, have let the following contracts for the proposed 3-story and basement apartment buliding, 26 × 90 ft., containing 14 apartments, for George W. Blanchard, 45 Sibley St.: Composition roofing, to HOWIE ROOFING CO., 370 Fourth Ave.; steam heating, to MAX KLEIN, 292 Gratiot Ave.; plastering, to C. VISGER, 60 Beecher St.

Varney, Winter & Varney, Archs., Equity Bldg., Detroit, have let the following contracts for a 4-story and basement store building, to be erected at Grand River and Broadway Aves. for the Baldwin Estate: Structural iron work, to T. F. DAIGLE IRON WORKS, Congress and Fourth Sts.; masonry, to LORD & FABER, 1277 Brooklyn Ave.; carpentry, to T. MERCIER, 257 McDougal Ave.; composition roofing, to AMERICAN ROOFING CO., 634 Gratiot Ave.

Bids are asked until April 30, at the office of T. F. Shotwell, McGraw Bldg., Detroit, for plumbing, heating and electric wiring of the Woodward Ave. Presbyterian Church of Detroit.

CALUMET, MICH.—F. W. Hessenmueller, Arch., Calumet, Mich., is preparing plans and specifications for a 3-story building, 130 × 84 ft., for the Krupp Estate of Calumet. Building will have brick and stone facing.

ALPENA, MICH.—Spier, Rohns & Gehrke, Archs., 1325 Chamber of Commerce Bldg., Detroit, are preparing plans and specifications for a passenger depot, 1-story and basement, 120 × 50 ft., for the Detroit & Mackinaw R. R. Co., of Alpena, Mich. Paving and stock brick, local limestone, structural iron, ceramic tiling and electric fixtures will be used in construction.

LANSING, MICH.—The Parish of St. Paul's Episcopal Church, of Lansing, Mich., have voted to build a church to cost about $50,000.

NILES, MICH.—The Board of Education of Niles, Mich., will erect a High School building the coming summer to cost about $50,000.

KALAMAZOO, MICH.—F. D. [illegible] Valkenburg, Arch., Kalamazoo National Bank Bldg., Kalamazoo, Mich., is preparing plans and specifications for a business block in Kalamazoo. It will be three stories high, 40 × 100 ft.

LANSING, MICH.—The Lake Shore & Michigan Southern R. R. Co. is having plans prepared for a new freight and passenger station at North Lansing, and for an addition to its present freight station at Lansing. Samuel Rockwell is Ch. Engr., Cleveland, Ohio.

CHICAGO, ILL.—Plans have been completed for the group of buildings to be erected for the Sinai Congregation at the southwest corner of Grand Boulevard and 46th St. There will be a church building 100 × 150 ft., and a 3-story social building 70 × 175 ft. They will cost about $[illegible]. A. S. Alschuler is Arch., 154 Monroe [illegible]

H. R. Wilson, Arch., 218 La Salle St., is preparing plans for the building to be erected at the southwest corner of Halsted and Madison Sts. for the newly incorporated Halsted State Bank. It has not yet been determined whether it will have six or twelve stories. It will occupy a ground area of 120 × 120 ft., and probably will cost about $250,000.

*CENTRALIA, ILL.—Bids are asked until 3 p. m., May 18, by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the construction, complete (including plumbing, gas piping, heating apparatus, electric conduits and wiring) of the U. S. post-office at Centralia, Ill.

MILWAUKEE, WIS.—At the annual meeting of the corporation of St. John's Home, held recently, preliminary sketches of the home to be erected in the Lake Park district, prepared by T. L. Rose, were shown and steps will be immediately taken to raise the $60,000 necessary for the new building.

The Northwestern Mutual Life Insurance Co. Trustees at the quarterly meeting held April 13 announced the purchase of an entire block of downtown realty for $500,000 for a home office building.

SHEBOYGAN, WIS.—M. R. Zaegel has purchased Dr. Carl Muth's half interest in the brick business block at Eighth and New York Aves., and a piece of property in connection. He is planning to erect a 3-story building on this property to correspond with the present structure.

MADISON, WIS.—The Capitol Building Commission has awarded contracts for the following work to be done in connection with the erection of the new south wing of the State Capitol building in this city: GEORGE NELSON, Madison, terrace wall, $8,946; McNULTY BROS., 9 Jackson Boulevard, Chicago, mason and plastering, $80,900; J. H. FINDORFF, Madison, carpenter work, $44,000; CHARLES WILLIAMS & CO., Minneapolis, plumbing, $21,800; VULCAN IRON WORKS, Milwaukee, ornamental iron work, $35,550; JOSEPH W. MITCHELL, Madison, water mains, $10,630. The work of razing the old south wing will be commenced May 1.

ESTHERVILLE, IOWA.—Bids were received recently by James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, for the construction of a post-office at Estherville, Iowa. Award has just been made for this work to I. N. SALYERS, of Estherville, Iowa, at $57,423. Time, May 1, 1911.

LOGAN, IOWA.—J. E. Mills, Arch., 510 Washington Arcade Bldg., Detroit, is preparing plans and specifications for a 3-story court-house, 95 × 70 ft., to be located at Logan, Harrison County. Stock brick, stone, galvanized iron cornice, structural iron, ceramic tiling and electric fixtures will be used in construction.

ALBERT LEA, MINN.—We are officially advised that Chandler & Park, Archs., 400 Main St., Racine, Wis., are preparing plans for the erection of a school building, 165 × 140 ft., estimated to cost $115,000. There will be 14 grade rooms. The building will be of brick and stone construction. An electric clock system, vacuum cleaning system, laboratory fixtures, machinery for manual training, forges, etc., will be installed. Noted on March 31.

WAYZATA, MINN.—ALBERT BJORAAS, of Chippewa Falls, Wis., has been awarded the contract for building a 2-story 10-room school building at Wayzata, Minn. The structure will be 70 × 103 ft.

ST. PAUL, MINN.—Bids are asked by D. W. Lawler, Mayor, until noon, April 25, for the general construction of a 2-story pressed brick and cut stone fireproof addition to the Mound Park School, to cost $32,000, according to the plans of Buechner & Orth, Archs. On the same date bids will be taken for a 2-story pressed brick and cut stone fireproof addition to the Baker School, to cost $15,000, plans of which were drawn by E. J. Donohue.

ST. PAUL, MINN.—The construction of a $100,000 addition to the Endicott Arcade will be undertaken soon. Luther S. Cushing, Endicott Bldg., city, is agent for the owners. It is planned to make the addition a fireproof structure of brick, marble, tile and plate glass.

COLUMBUS, NEB.—Bids were received by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., on April 14 for the construction of a post-office at Columbus: Northwestern Construction Co., Wahpeton, N. Dak., $70,000; J. H. Wiese, South Omaha, Neb., $71,380; General Construction Co., Hathaway Bldg., Milwaukee, Wis., $68,735.

INDEPENDENCE, MO.—James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., will award to the HIRAM LLOYD BUILDING & CONSTRUCTION CO., Odd Fellows Bldg., St. Louis, Mo., contract for the construction of a post-office at Independence, Mo., at $71,000.

ST. LOUIS., MO.—The construction of a passenger station in St. Louis to cost from $1,000,000 to $1,500,000, is the plan of the Illinois Traction Co. Land has been purchased and designs for the building have been drawn, and the entire project is now before the executive officers for final approval. The building will be about 15 stories high, with the trackways, platforms and ticket offices on the main floor; waiting-rooms on the second floor and offices in the other stories. W. B. McKinley is Pres.

HOUSTON, TEX.—The Southern Pacific Co. will erect an office building here, to have a floor space of approximately 130,000 sq. ft. It will be erected upon what is known as the old Hutchins House block, which is directly behind the Commercial National Bank building. It will front 145 ft. on Franklin Ave. and 175 ft. on Travis St. It will be nine stories in height in addition to the basement. Jarvis Hunt, San Francisco, is the company's architect.

NORTH YAKIMA, WASH.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., May 26, for the construction complete (except elevator, including plumbing, gas piping, heating apparatus, electric conduits and wiring) of the U. S. post-office at North Yakima.

BARSTOW, CAL.—C. A. FELLOWS, Central Bldg., Los Angeles, Cal., has secured contract for erecting a 1-story and 2-story reinforced-concrete depot and hotel building at Barstow, Cal., for the Atchison, Topeka & Santa Fe Ry. Co., at $210,000. There will be three buildings, 130 × 60 ft., 175 × 135 ft. and 160 × 50 ft. Red paving brick siding, mission tile roof, hollow tile roof, baths and showers will be used. There will be a power-house for heating, refrigerating and electric generator. Francis W. Wilson, Kerckhoff Bldg., Los Angeles, Cal., is Arch.

SAN FRANCISCO, CAL.—Plans have been prepared by Reid Bros., Archs., Claus Spreckles Bldg., for a 6-story building to be constructed in Market St., with a frontage of 55 ft. on Market St., and also with a frontage of 44 ft. in California St. The location is described as Market St. west of Drumm. The average depth of the building will be 110 ft. The structure will be built for the San Francisco Land Co. It will be finished as a loft building, with provisions for dividing the floors into offices if it should be thought to be advisable. The fronts will be of terra cotta and enameled brick. The cost will be about $65,000.

A hotel building will be erected for the Goodman Estate on the north side of Post St., between Powell and Mason Sts. It will be constructed of reinforced concrete and will be fireproof. The plans, prepared by MacDonald & Applegarth, Archs., Call Bldg., call for a structure six stories high with basement, to adjoin the Argonaut Club on the west. The exterior of the building will have a light cream colored caen stone finish. The building will be finished in 120 working days. The foundation has been partly laid. There will be a bath with every room.

FORT MASON (San Francisco post-office), CAL.—It is stated that 36 bids were received on April 2 by Maj. George McWilliamson, Constr. Q. M., U. S. A., for the construction of the proposed army administration building and two of the four storehouses of the supply depot to be established at Fort Mason. The bids were tabulated by Major McWilliamson and sent to Washington, where the awards will be determined. Of the 36 bids, that of the Ferrolite Co. was the lowest on both the administration building and the storehouses. The Ferrolite Co. offers to erect the administration building for $111,000 and the two storehouses for $118,570. Heating, plumbing, fire-extinguishing apparatus, elevators and electric wiring will add from $30,000 to $35,000 to the total cost of the three structures. The three buildings will be constructed of reinforced concrete, with tile roofs. The warehouses will 3-story structures, able to stand a weight of 600 lbs. to the square foot. The administration building, it is planned, will be an ornate structure, three stories in height, with a clock tower 130 ft. high. The exterior will be trimmed in granite and the interior in marble and mahogany. W. G. Armitage is Government Engr.

LOS ANGELES, CAL.—The general contract for the erection of St. Mary's Academy has been awarded to the McNALLY CONSTRUCTION CO., at $128,413.

A hotel building, of an approximate cost of $2,000,000, will be erected by the H. W. Hellman Estate at the northeast corner of Hill and Tenth Sts. The lot on which the building will be erected is the site of the H. W. Hellman homestead. It has a frontage of 200 ft. on Hill St. and of 155 ft. on Tenth St. The time for beginning construction has not been determined. Work may be begun early next year, or possibly several months later.

PASADENA, CAL.—The Y. M. C. A. has raised $112,000 for the erection of a 4-story brick building to be erected at once. A. B. Benton is Arch., 114 North Spring St., Los Angeles.

RIVERSIDE, CAL.—The Congregationalists of Riverside contemplate the erection of a church building to cost $100,000. Wilbur H. Howard is Chn. of Bldg. Com.

SANTA BARBARA, CAL.—A. B. Benton, 117 North Spring St., Los Angeles, has prepared plans for a 3-story concrete hotel building, to be erected on the site of the Arlington Hotel, which burned last year. It will be mission style, with towers, collonades, etc. Estimated cost, $300,000. A company will be incorporated to erect the building. Among those are the owners of the former hotel and Harry D. Clark, Mgr. The RICHARDS - NEUSTADT CONSTRUCTION CO., Wright & Callender Bldg., Los Angeles, has been awarded the contract for the portion to be erected at once, comprising the reconstruction of the old building and erecting a portion to contain 66 rooms, making a total of 105 rooms. A further extension will provide 70 rooms. The contract price is $160,000 for the present work of reinforced-concrete beam and girder construction, with hollow tile partitions, elevators, baggage lifts, boiler room and machine shops, lockers, laundry.

CARSON CITY, NEV.—Bids are asked by the Board of Prison Commissioners of the State of Nevada until May 9 for furnishing 300 steel cells, together with necessary window guards, gratings, cut door locking and operating devices. J. W. Le Gate, Carson City, is Clerk of Bd.

MONTREAL, QUE.—Plans have been submitted to the members of the Board of Control by the Building Inspector for enlarging the City Hall by the erection of an annex to the rear of the present building at a cost of about $175,000.

WINNIPEG, MAN.—The Northern Crown Bank will expend $65,000 in alterations to its head offices here. R. Campbell is Gen. Mgr.

VANCOUVER, B. C.—Contracts to the amount of approximately $325,000 have been awarded by the directors of the Metropolitan Building Co. for the construction of the Metropolitan 10-story office building on the north side of Hastings St., at the west of the Winch Block. Work on the structure will be started when the building at present on the premises has been razed. It is the expectation of the directors of the company that the premises will be ready for occupancy within a year. Some of the contracts already awarded were given the following firms: JOHN COUGHLAN & SONS, steel fabrication; ROSS & HOWARD, cast-iron bases; E. E. DAVIS & CO., steel erection; WELLS CONSTRUCTION CO., preparation of site, concrete work and stone; CANADA FOUNDRY CO., ornamental iron; BARR & ANDERSON, steam heating; DOREL & KILLING, plumbing; SEARS & CO., bricklaying; RAFTERY & CO., expanded metal and plastering; WESTERN SHEET METAL WORKS, sheet metal and roofing; COPE & SON, electrical work; ROBERT STEWART, hardwood finishing; BRITISH COLUMBIA PLATE GLASS & IMPORTING CO., painting and glazing; A. & P. STEVEN, Glasgow, Scotland, elevators.

WATER-SUPPLY—IRRIGATION.

(* *denotes that this work is advertised in Engineering News.*)

PITTSFIELD, MASS.—The Water Committee has submitted its report to City Council and recommends the construction of a reservoir on the headwaters of Mill Brook, with a capacity of 270,000,000 gallons. Estimated cost, $250,000.

GARDNER, MASS.—The water main in West St. will be extended 1,000 ft. There will also be made a short extension of the pipe line in Oak St. and the Glazier St. main will be replaced with new pipe.

WALLINGFORD, CONN.—Bids will be received until April 25 by P. J. Leonard, Chn. Bd. Water Comrs., for laying approximately 9,255 lin. ft. of 4, 6 and 8-in. c.-i. pipe and the excavation of about 50 cu. yds. of rock. Plans and specifications are on file at the office of Engineering News, New York.

NEW BRITAIN, CONN.—The Board of Water Commissioners have voted to build a reservoir on the Pierre property, to have a capacity of 3,000,000 gallons. Estimated cost, $20,000.

BUFFALO, N. Y.—The Mayor on April 13 signed the bill recently passed by the Legislature empowering the city to sell bonds for an additional $1,500,000, to continue the construction of the new water-works plant. F. G. Ward is Comr. Pub. Wks.

CROGHAN, N. Y.—The State Senate has passed a bill authorizing the Village Trustees to issue $29,000 of bonds for the construction of water-works.

TROY, N. Y.—Bids are asked until April 26 by the Board of Contract and Supply for 240 tons of c.-i. water pipe to be used for extensions to the water-works.

ROCKAWAY, N. J.—The Borough Council on April 14 decided to extend the water mains in White Meadow Ave., Hibernia Ave. and East Main St., 2,000 ft. and let the Water Committee determine the number of feet to be laid in each thoroughfare.

BRADFORD, PA.—WILLIAM McINTIRE & SONS, of Sharon, have secured contract, it is reported, for the construction of a reservoir in Bradford, at about $100,000.

PITTSBURG, PA.—Bids will be received until April 25 by the Department Public Works, Joseph G. Armstrong, Dir., for laying, relaying, raising anl lowering c.-i. hub and spigot water pipe in the Hump District, and the North Side and West End flood districts.

BALTIMORE, MD.—Bids are asked until 11 a. m., April 27, by the Board of Awards, care of J. Sewell Thomas, City Register, for furnishing and erecting pumping station for pipe line system in South St., near Pratt St. T. Barry Mahool is Pres. Bd.

MOUNT JACKSON, VA.—The city has voted a bond issue for the construction of a gravity system of water-works, to include cement reservoir of 60,000 gallons capacity. Estimated cost, $12,000. F. E. Brill is interested.

QUITMAN, GA.—Bids were opened on April 6 for furnishing material and constructing a steel tower and tank with a capacity of 150,000 gallons. Contract has been awarded to R. D. COLE MFG. CO., of Newnan, at $10,000. H. S. Jaudon, Box 582, Savannah, is Engr.

GAINESVILLE, GA.—The citizens voted on April 2 to issue $100,000 of bonds for the construction of water-works, extension of sewers and lighting system, and the erection of a new ward school.

OSYKA, MISS.—The city is considering the construction of water-works and drilling artesian well, and will erect brick building. Reservoir, capacity, about 60,000 gallons. Construction bids will probably be opened in June or July. X. A. Kramer, Magnolia, Miss., is preparing plans.

VICKSBURG, MISS.—The City Council is considering the purchase of the present water-works system instead of constructing a system, as has been authorized. George W. Fuller, of Hering & Fuller, Engrs., 170 Broadway, New York, is Consulting Engr.

*MERIDIAN, MISS.—Bids will be received by the Water Commission, William F. Wilcox, Gen. Mgr., until May 3 (readvertisement) for constructing 8,500 ft. of 24-in. reinforced concrete conduit.

SOUTH BEND, IND.—Contract for furnishing 300 tons of pipe and special castings has been awarded by the Board of Water-Works Trustees to the GLAMORGAN PIPE & FOUNDRY CO., of Lynchburg, Va., at $25.50 per ton for pipe and $49 per ton for special castings, f. o. b. South Bend.

BROWNSTOWN, IND.—The Brownstown Water & Light Co., recently incorporated, is preparing to ask for bids for the construction and equipment of a combined water and electric light plant.

*DETROIT, MICH.—Bids are asked until noon, June 14, by the Board of Water Commissioners for the erection of engine room building superstructure at new pumping station. Benj. F. Guiney is Secy.

GRAND RAPIDS, MICH.—The citizens voted on April 4 to construct a filtration plant and also have voted to issue $75,000 of bonds to extend the water mains. James Schriver is City Clk.

CHARLES HOERTZ & SON, of Grand Rapids, have been awarded contract for erecting the boiler room building at the new pumping station here.

SAGINAW, MICH.—The Board of Water Commissioners has approved the laying of new water mains this year. Estimated cost, $30,000.

MADISON, WIS.—The Capitol Building Commission on April 8 awarded contract for laying water mains around capitol park and the capitol lighting and heating plant to JOSEPH W. MITCHELL, of Madison, at $10,630.

ALBERT LEA, MINN.—Bids are asked by the city until April 26 for the construction of 1,962 ft. of 6-in. and 952 ft. of 4-in. water mains, four fire hydrants, eight 6-in. gate valves, and seven 4-in. gate valves. William Barneck is City Engr.

RUSSELL, KAN.—Bids are asked until 7 p. m., April 22, by H. A. Dawson, City Clk., for furnishing material and constructing a concrete dam for the water-works system.

JAMESTOWN, KAN.—Bids will be received until April 22 by F. M. Cook, City Clk., for constructing water-works and electric lighting plant as follows: Furnishing material and labor (except standpipe) and constructing a complete water-works system, furnishing material and constructing a transmission line from Concordia to Jamestown, about twelve miles; the electric lighting system at Jamestown; furnishing material and erecting water tower, 30,000-gallon capacity, 100 ft. high. Burns & McDonnell are Engrs., Scarritt Bldg., Kansas City, Mo.

COLBY, KAN.—Bids will be received until May 3 by C. V. Parrott, City Clk., for constructing water-works and electric light plant. Burns & McDonnell are Engrs., Scarritt Bldg., Kansas City, Mo.

COLDWATER, KAN.—We are officially advised that the J. S. Worley Co., Consulting Engrs., Reliance Bldg., Kansas City, Mo., have been employed to prepare plans and specifications for a water-works and electric light plant here.

GRAND FORKS, N. DAK.—Bids will be received until May 2 by the City Council for constructing a water main in Seventh Ave. W. H. Alexander is City Audr.

KANSAS CITY, MO.—The city has voted $1,500,000 of water-works bonds.

KENNETT, MO.—The city has voted $40,000 of bonds for the construction of water-works, to consist of about nine miles of pipes.

HIGGINSVILLE, MO.—The city proposes to enlarge the municipal water-works and electric light plant and will build a large lake. Frank Mouser is Supt.

DALLAS, TEX.—The citizens on April 5 voted to issue $100,000 of water-works bonds.

SNYDER, TEX.—The citizens on April 2 voted to issue bonds for $17,400 for water-works and $17,000 for sewers. Fountain-Shaw Engineering Co., of Dallas, are Engrs.

MARSHALL, TEX.—Bids will be received by the City Secretary until 2 p. m., April 26, for furnishing approximately 2¼ miles of 12-in. water pipe and necessary fittings. Bids are invited on both wood and c.-i. pipe. Plans and specifications may be seen at the office of the City Secretary. W. S. Cunningham is Consulting Engr.

ARDMORE, OKLA.—The city has awarded contract to GEORGE ERICHSEN, of Ardmore, for constructing filtration plant at the city lake, to consist of three pressure filters of 500,000 gallons capacity each and coagulant tank, at $10,457.

EL RENO, OKLA.—The city has voted $250,000 of bonds for the construction of water-works.

KREBS, OKLA.—LANE & WILLIAMSON have received contract for the construction of a dam in connection with the water-works system at $16,000 and F. C. BROOKS & SONS CO., Jackson, Mich., for furnishing and laying water pipes, hydrants, etc., at $21,408.

SENTINEL, OKLA.—Bids are asked by the city until April 27 for the purchase of steel water tower, internal-combustion engine, triplex pump, pipe, hydrants, valves, etc.; F. Murch is Town Clk.

COLORADO SPRINGS, COLO.—Articles of incorporation were filed with the Secretary of State on April 6 incorporating the Empire Water & Power Co. of Colorado Springs for $1,000,000. The company will operate in El Paso and Teller Counties. W. A. Otis, K. R. Babbitt and C. E. Titus are the incorporators.

GREELEY, COLO.—At an expenditure of $525,000, W. H. Everle, of Denver, will build the Comanche-Kiowa irrigation system in Adams and Weld Counties. It will include the Wolfe and Baker reservoirs, Wolfe, Kiowa and Comanche ditches and irrigate 20,000 acres.

A map has been filed of the Farmers' No. 2 reservoir, located three miles southeast of La Salle, which will have a dam 78 ft. high and provide water for 108,000 acres.

*CREEDE, COLO.—Bids are asked by the Board of Directors of the San Luis Valley Irrigation District at the office of the company at Center, Colo., until 2 p. m., May 25, for the construction of a dam and spillway at the Rio Grande reservoir site, located about 30 miles west of Creede, in Hinsdale County, the dam being 450 ft. in length, 100 ft. high, 30 ft. wide on top, and involves the placing, approximately of 68,000 cu. yds. of loose rock fill, 120,000 cu. yds. of earth fill, and 7,000 cu. yds. of rip-rap. Plans and specifications for said dam and spillway can be seen at the office of the District in the town of Center, or at 205 Boston Bldg., Denver, Colo.

PORTALES, N. MEX.—The WESTINGHOUSE ELECTRIC & MFG. CO., Pittsburg, Pa., has been awarded contract for two 600-KW. alternating-current generators, to be installed in connection with the work of the Portales Irrigation Co., Portales. The WESTINGHOUSE MACHINE CO. will make the gas engines to drive these and will also furnish three 500-HP. bituminous gas producers. The generators will develop a 3-phase, 60-cycle, 2,300-volt current which will be stepped up to 11,000 volts. At the substations, this will be reduced to 440 volts. In connection with this irrigation project, 72 motor-driven pumps will take water from wells 30 to 50 ft. deep, and deliver it to the farms in the surrounding territory. The WESTERN CONSTRUCTION CO., of Wichita, Kan., has the contract for the construction work, which will cost $350,000. It is expected that the cost of water per foot-acre supplied by the system will be sufficiently low to make it commercially practicable to reclaim hundreds of thousands of acres of similarly arid lands, which have substrata carrying a large quantity of water.

BELLINGHAM, WASH.—Contract for supplying small sized water meters was awarded on April 7 by the city to MUNRO & HASKELL, representing the Pittsburg Meter Co.

TACOMA, WASH.—The citizens on April 5 voted to issue $2,000,000 of bonds for the construction of the Green River gravity water system. W. C. Raleigh is City Engr.

The Board of Public Works on April 7 awarded contract for constructing a large water main district in the West End to D. A. WILLIAMS & CO., at $23,950.

UNION, ORE.—See item under Light and Power Plants.

FALLS CITY, ORE.—The citizens have voted to issue bonds for the construction of water-works.

REDLANDS, CAL.—The Directors of the Bear Valley Mutual Water Co. have accepted the plans of John S. Eastwood, Engr., of Fresno, Cal., for a new dam, which is to be erected 150 ft. below their present dam, to be 65 ft. high. Estimated cost, $80,000. The dam is to be an "Eastwood" multiple arch type and eight arches will be used to span the canyon. Reinforced concrete construction.

GLENDALE, ARIZ.—R. P. Davis, of the Southwestern Sugar & Land Co., has awarded contract for a pumping plant on the Agua Fria to bring up the underground waters. The plant will include a steam plant, dynamos and pump lines, generating 400 HP., to operate pumps and will raise 2,500 gallons per minute. Estimated cost, $35,000.

YUMA, ARIZ.—Alexander Mead, president of several ditch and reservoir companies of Greeley, Colo., A. A. Edwards, of Fort Collins, Colo., Mgr. Laramie-Poudre Co., D. A. Camfield, and others will promote a big irrigation enterprise near Yuma, adjoining the Imperial Valley in Southern California.

OGDEN, UTAH.—Bids were opened on April 4 for concreting Reservoir No. 2. Contract has been awarded to the WHEELWRIGHT CONSTRUCTION CO., of Ogden, as follows: For 2,058 cu. yds. concrete, including forms, $7.24, and 200 cu. yds. excavation, 50 cts.

TORONTO, ONT.—The citizens on April 9 voted to issue $279,539 for the extension of the water mains.

WINNIPEG, MAN.—The Board of Control has awarded contract to the CANADIAN FAIRBANKS CO. for the supply of hydrants at $37 each. T. McAVITY & SONS secured contract for the supply of valves.

SEWERAGE.

(* *denotes that this work is advertised in Engineering News.*)

LENOX, MASS.—William S. Johnson, of Boston, has completed his report on sewers, and recommends an expenditure of $29,300 for two miles of new sewers, an extension of main sewer, settling tanks, sludge beds and filter beds.

PITTSFIELD, MASS.—Bids were opened by the Board of Public Works, L. B. Cummings, Clk., on March 30, for constructing a section of main trunk sewer in Wahconah and North Sts. Contract has been awarded to DANIEL A. DOREY, of Natick, at $8,500.

LOWELL, MASS.—The City Council on April 12 voted in favor of a loan of $50,000 for the construction of sewers.

PROVIDENCE, R. I.—The Board of Aldermen on April 7 adopted the ordinance providing for an issue of $400,000 of sewer bonds.

FULTONVILLE, N. Y.—Bids will be received by W. H. Turnbull, Village Clk., until 2 p. m., April 25, for the construction of a sewer system.

NORTH TONAWANDA, N. Y.—Plans for a sewer system which it is proposed to construct in the Rumbold Ave. district of North Tonawanda at a cost of $30,000 have been completed and sent to the State Department of Health at Albany.

BINGHAMTON, N. Y.—Bids are asked by the Board of Contract and Supply until 4 p. m., April 27, for constructing sewers in various streets. D. C. Herrick is Clk.

VENTNOR, N. J.—The Council on April 7 awarded contract to LEMUEL HENRY for constructing a large sewer pipe at $20,000.

PATERSON, N. J.—Governor Fort has signed the bill to authorize the Passaic Valley Sewerage Commission to contract with the U. S. Government for the discharge of the Passaic Valley sewage into New York Bay at Robbins' Reef. The Commissioners will now be able to proceed with the work. The trunk sewer will pass from the meadows south of Newark under Newark Bay and under Greenville to Robbins' Reef and the sewage will be treated or screened before it is discharged into New York Bay.

HOBOKEN, N. J.—Bids are asked by the Mayor and Council until 4 p. m., April 27, for resetting the tide gate in the Third St. sewer in River St. near Third St.

*WESTFIELD, N. J.—Bids are asked until 8.15 p. m., May 16, by the Town Council for constructing sanitary sewers and appurtenances in the town. The estimated quantities are: 11,600 lin. ft. of 8-in. vitrified pipe sewer, 60 lin. ft. of 8-in. c.-i. pipe sewer, 21 manholes, 460 branches, ten combined flushtanks and manholes, three drop connections, ten extension connections. Lloyd Thompson is Town Clk.

INDIANA, PA.—J. J. McGOVERN has been awarded contract for the construction of the Normal School sewer here. Thomas Pealer is Boro. Engr.

*BALTIMORE, MD.—Bids will be received by the Board of Awards at the office of J. Sewell Thomas, City Register, until 11 a. m., May 4, for Contract 50, for constructing Sect. 2 of the Jones Falls interceptor. Approximate quantities are: 18,000 cu. yds. earth excavation in trench, 300 cu. yds. earth excavation in tunnel, 150 cu. yds. rock excavation, 650 cu. yds. embankment, 240 lin. ft. 24-in. diameter c.-i. pipe sewer, 375 cu. yds. brick masonry, 4,200 cu. yds. concrete masonry, 145,000 lbs. reinforcing steel, 16,000 lbs. structural steel, 150 M. ft. B. M. ordinary sheeting, shoring and bracing left in place. Calvin W. Hendrick is Ch. Engr., Room 904, American Bldg.

RICHMOND, VA.—The city has awarded the following contracts for construction of sewers: BURTON & DRISCOLL, sewer in West St. and other streets, $18,948; West Cary St., $8,428; Shepherd St., $14,371; West St., $8,426; J. C. CHEATWOOD, sewer in North 17th St., $6,986; I. J. SMITH & CO., sewer in West Cary St., $7,717, all of Richmond.

GREENVILLE, S. C.—The city has voted $40,000 of bonds for sewer construction.

CHARLESTON, S. C.—The City Council has decided to extend the sewer system now in course of construction to all parts of city. Contract has been awarded to GUILD & CO., Chattanooga, Tenn., the present contractors.

GAINESVILLE, GA.—See item under Water Supply—Irrigation.

ATLANTA, GA.—Bids will be received by the Mayor and General Council until May 2 for construction of about 24,000 ft. of trunk sewers, from 6 ft. × 9 ft. to 24-in.

NEW ORLEANS, LA.—J. A. Craven & Co., of New Orleans, are the lowest bidders for construction of sub-surface drainage system in Palmyra St. Estimated cost, $80,000. W. J. Hardee is City Engr.

JACKSON, TENN.—Bids will be received by Atwell Thompson, City Engr., until May 3 for the construction of sanitary sewers.

ERWIN, TENN.—The city will construct about four miles of sanitary sewers. William Dunlap is Engr., Johnson City, Tenn.

LOUISVILLE, KY.—Bids will be received by the Commissioners of Sewerage, P. L. Atherton, Chn., until April 29 for Contract 66, construction of the Seventh and Hill St. sewers; also same time and place for Contract 67, for constructing Sec. 8 of Middle Fork sewer. J. B. F. Breed is Ch. Engr.; Harrison P. Eddy is Consulting Engr., 14 Beacon St., Boston, Mass.

AKRON, OHIO.—McALONAN BROS. have been awarded contract for the construction of the Bartges St. storm sewer at $8,254.

MICHIGAN CITY, IND.—W. H. BELL has been awarded contract by the city at $39,833, for the construction of the Willard Ave. district sewer, beginning opposite the prison grounds and extending northward in Hutchinson St. and Willard Ave. to Fourth St., and along Fourth St. eastward to the railway tracks, and at $5,668, for the construction of the Tryon District sewer.

SOUTH BEND, IND.—Bids are asked by the Department of Public Works until 10 a. m., May 3, for constructing a pipe sewer in a portion of East Broadway. A. P. Perley is Clk.

HAMMOND, IND.—Bids are asked by the Board of Public Works until 10 a. m., April 22, for the construction of an 18-in. double-strength vitrified socket pipe sewer with four manholes, two catch basins and 40 6-in. house connections.

INDIANA HARBOR, IND.—Bids have been opened as follows by the City Council for the 141st St. sewer and laterals: Fehr Construction Co., $77,140 for main sewer; $74,628 for laterals; James Healy, $78,547 and $76,797; F. G. Proudfoot, $62,490 and $67,402; Federal Improvement Co., $70,960 and $72,692; O'Shea & Shea, $59,235 and $65,143; GREEN SONS CO., $59,322 and $64,876 (awarded contract).

GRAND HAVEN, MICH.—The City Council has accepted the plans prepared by the City Engineer for constructing sewers in various streets.

SOUTH HAVEN, MICH.—The Common Council has approved the building of four new sewers this summer.

GALESBURG, ILL.—Bids were received on April 12 by the City Engineer for the construction of the Kellogg, Cherry, Fifth and Seminary St. sewer. Contract was let to the lowest bidder, MART O'CONNOR, at $8,832. The only other bidder was J. B. McAulay, whose bid was $11,884. The specification calls for the supply and laying of 1,680 ft. of 24-in. pipe, 1244 ft. of 18-in. pipe, 3,494 ft. of 15-in. pipe, 13 manholes and 24 catch basins.

PRINCETON, ILL.—W. S. Shields, 140 Dearborn St., Chicago, has completed surveys for a sewer system to be constructed in the south end. Estimated cost, $30,500.

HAMBURG, IOWA.—DUNNEGAN & COREY, of Shenandoah, have been awarded contract for the construction of sewers in this city at $8,181. Bids were opened on March 31.

EVELETH, MINN.—The PASTORET-LAWRENCE CO., of Duluth, Minn., have secured contract for the construction of storm sewers and catch basins at $3,500. Bids were opened on April 5.

BRAINERD, MINN.—Bids will be received until May 16 by V. N. Roderick, City Clk., for constructing lateral sewer "L" in Sewerage Dist. No. 1.

ATCHISON, KAN.—Bids are asked until 5 p. m., April 27, by Charles A. Hawk, City Clk., for constructing combination storm and sanitary sewer in District N, the work including 1,170 ft. of 60-in. sewer, 15,695 cu. ft. 8-in. tile, etc., 1,015 lin. ft. of 60-in. and 56-in. culverts, etc. S. K. McCrary is City Engr.

LAWRENCE, KAN.—RICHARD KEYS has been awarded contract at $1.50 per lin. ft., and 40 cts. for excavation, for the construction of a storm sewer of brick in Henry St., between Maine and Missouri Sts., and GRAEBER BROS., at $3.75 per lin. ft. and 25 cts. per cu. yd. for excavation, for the construction of a concrete culvert in Mississippi St.

HAYS CITY, KAN.—Bids will be received until May 5 at the office of the City Clerk for furnishing material and installing a sanitary sewer system. The W. K. Palmer Co. are Engrs., Dwight Bldg., Kansas City, Mo.

WICHITA, KAN.—Bids are asked until noon, May 2, by William Sence, City Clk., for constructing lateral systems of sanitary sewer No. 12 in Districts A, B, C, E, F and G, the work including 1,513 lin. ft. of 21-in., 2,810 lin. ft. of 18-in., 3,470 lin. ft. of 15-in., 6,797 lin. ft. of 12-in., 6,320 lin. ft. of 10-in., and 113,706 lin. ft. of 8-in. vitrified pipe sewer. Bert C. Wells is City Engr.

ALLIANCE, NEB.—Bids will be received by the City Clerk until April 25 for the construction of lateral sanitary sewers in eight districts, 9,476 lin. ft. Estimated cost, $8,090. Grant & Leton, 401 F. & M. Bldg., Lincoln, are Engrs.

ST. PAUL, NEB.—We are officially advised that the J. S. Worley Co., Reliance Bldg., Kansas City, Mo., has been employed to prepare plans and specifications for the construction of a sewer system at St. Paul.

COLUMBIA, MO.—Bids were opened on April 5 for the construction of sewers of tile and earthenware. Contracts have been awarded as follows: To COLUMBIA PAVING CO. for sewers 30, 31 and 33, at $14,039, and to C. A. STEWART for sewer 28 at $4,261.

STUTTGART, ARK.—Bids are asked by the Board of Public Improvements of Sewer District No. 1, Robert Conn, Pres., until April 25 for construction of sewer system, including sewage-purification works equipped with tank and electric ejectors with all appliances and connections.

BEEVILLE, TEX.—The citizens have voted to issue $30,000 of bonds for the construction of a modern sewer system for the town. The contract will soon be let.

BELTON, TEX.—The Belton Sanitary Sewer Co. has awarded contract for the construction of a system of sewers in Belton to the FOUNTAIN-SHAW ENGINEERING CO., of Dallas.

DALLAS, TEX.—The city has awarded contract to C. W. OLCOTT, of Dallas, for constructing sanitary sewer in Cochran St.

TULSA, OKLA.—The city has awarded contract at $13,268 to H. C. GASS CO., of Tulsa, for constructing 1,166 ft. of combination storm and sanitary sewer in West First St.

ADA, OKLA.—Contract for construction of sanitary lateral sewers in Dist. 3, consisting of 10,150 lin. ft. of 12 and 8-in. pipe, with necessary appurtenances, bids opened on March 14, has been awarded to GILKERSON & LEVY, of Muskogee, at $8,128.

TACOMA, WASH.—The citizens on April 5 voted to issue $100,000 of bonds for the construction of three storm-water sewers. W. C. Raleigh is City Engr.

PASADENA, CAL.—OLMSTED & GILLELAND, of Los Angeles, it is reported, has secured contract for a septic tank at the city sewer farm at about $10,000.

GARBAGE DISPOSAL.

(* denotes that this work is advertised in Engineering News.)

CORNING, N. Y.—At a joint meeting of the Boards of Public Works and Health on April 12, a resolution was adopted requesting the senator and representative from this district to introduce a bill in the Legislature providing for the proposed incinerating plant. Estimated cost, $20,000.

CARNEGIE, PA.—Bids are asked by H. R. Bingham, Boro. Clk., until 7.30 p. m., April 25, for collecting, hauling, removing and disposing of all garbage in the borough for one year from May 1, 1910.

WASHINGTON, D. C.—Contracts for the collection and disposal of garbage, refuse, etc., were awarded on April 7 as follows: Collection and disposal of garbage, 5-year contract, to WASHINGTON FERTILIZER CO., Washington, D. C., at $68,400 per year; collection and disposal of dead animals, 5-year contract, to ROBT. E. MANN, Four Mile Run, Va., at $2,855 per year; collection and disposal of night soil, 3-year contract, to WARNER STUTLER, Washington, at $16,600 per year; collection and disposal of miscellaneous refuse, weekly, 5-year contract, to MICHAEL R. READY, Washington, at $17,000 per year; collection and disposal of ashes, 5-year contract, to JAMES W. BEAN, Washington, at $73,150 per year; collection and disposal of ashes and refuse from buildings under control of the District Commissioners, 3-year contract, to WARNER STUTLER, Washington, at 45 cts. per cu. yd. List of bidders noted on March 31.

WHEELING, W, VA.—The Council on March 29 adopted the report of the Special Committee appointed to investigate various types of incinerators, recommending the Decarie plant. Work on the new crematory will be begun as soon as the contract is signed with DECARIE MFG. CO., of Minneapolis, Minn. The new plant will have a daily capacity of 60 tons of garbage and the company will erect a retaining wall, install the furnace in a brick fire-proof building, and put a pump at the reservoir to supply water to the plant at a cost of $35,000. The cost of consuming garbage will not exceed 60 cts. per ton.

MONTGOMERY, ALA.—See item under Light and Power Plants.

TOPEKA, KAN.—LEWIS & KITCHEN, of Kansas City, Mo., have secured contract, it is reported, for constructing a crematory at $16,700.

*VANCOUVER, B. C.—Bids will be received by W. McQueen, City Clk., until 3 p. m., May 31, for the installation of a garbage destructor plant at the Bridge St. yard on the south side of False Creek. The plant must be capable of destroying not less than 70 tons of mixed garbage per day of 24 hrs. Bidders will be required to submit plans and specifications with their proposals and furnish a satisfactory bond and guarantee that the destructor will fulfill all the provisions of the specifications. The price bid is to include the erection of the stack and all necessary buildings.

STREETS AND ROADS.

(* denotes that this work is advertised in Engineering News.)

CONCORD, N. H.—Bids are asked until 1 p. m., May 6, by H. C. Hill, State Engr., Concord, for the following road work: At Wilton, trap rock road, to cost $2,100, and native stone, six miles; at Winchester, native stone, $29,000; at Holderness, native stone, three miles.

LYNN, MASS.—Bids are asked by the Board of Public Works until 5 p. m., April 26, for laying about 10,000 sq. yds. of paving in the city of Lynn. Charles H. Ramsdell is Chn.

NEW HAVEN, CONN.—Bids are asked by C. W. Kelly, City Engr., until 2 p. m., April 30, for paving with wood block pavement Congress Ave., from Lafayette St. to Howard Ave.; State St., from Chapel St. to a point near Water St.; Grand Ave., from the bitulithic pavement near railroad cut to Mill River; Dixwell Ave., from Broadway to Munson St., and Gregson St., from Chapel St. to Crown St. With granite: Congress Ave., from Temple St. to Lafayette St., and State St., near Water St. With bituminous macadam: Frank St., from West St. to Barclay St.

The contract for grading Norton St. has been awarded to FRANK BRAZOS, of New Haven, at $3,030. Other bidders were A. N. Farnham, New Haven, $3,150; C. W. Blakeslee & Sons, New Haven, $3,300.

HARTFORD, CONN.—Bids will be received by James H. MacDonald, State Highway Comr., Capitol, until 2 p. m., April 22, as follows for state road work:

Town of Leyard, 1,850 lin. ft. of grading on the River Road, including one 24-in. tile culvert; 3,350 lin. ft. grading on the Ledyard Center Road, including four 20-in. and one 15-in. tile culverts; 3,900 lin. ft. grading on the Shewville Road, including one 15-in. tile culvert. Plans and specifications with William I. Allyn, Town Clerk.

Town of Mansfield, 3,050 lin. ft. gravel on the Spring Hill Road; 1,600 lin. ft. on the Willimantic-Stafford Turnpike; 2,500 lin. ft. on the Spring Hill-Storrs Road, including two 20-in. tile culverts. Plans and specifications with W. F. Storrs, First Selectman.

Town of Old Saybrook, 13,023 lin. ft. of macadam on the Fenwick Road. Plans and specifications with William H. Smith, First Selectman.

HARTFORD, CONN.—Contracts for state road work, bids for which were opened April 11, have been awarded by the State Highway Commissioner as follows: Town of Woodstock, 1,300 lin. ft. gravel-telford on the Quinnebaug Road, including two 24-in. tile culverts, to A. VITO, Thompson, Conn., $1.75 per lin. ft. for gravel, $2.50 for telford. Also 8,500 lin. ft. gravel-telford on the Eastford Road, including two 20-in., three 24-in., one 15-in. and two 12-in. tile culverts, to A. VITO, $1.65 per lin. ft. for gravel, $2.40 for telford and $1.05 for rubble drain.

Town of Tolland, 1,200 lin. ft. gravel-telford on Sand Hill Road, including one 12-in. iron pipe culvert, to O. T. BENEDICT, Pittsfield, Mass., $2.99 per lin. ft. for gravel, $3.59 for telford, 80 cts. per lin. ft. for rubble drain, $6 per cu. yd. for masonry walls. Also, 13,060 lin. ft. of grading on the West Willington Road, including two 20-in., four 24-in., three 18-in. and three 15-in. tile culverts, to O. T. BENEDICT, lump sum for grading, $27,999, 60 cts. per lin. ft. for telford and 80 cts. per sq. yd. for cobble gutters.

Town of Hampton, 9,300 lin. ft. grading on the Clark's Corner Road, including four 24-in. tile culverts, to A. VITO, of Thompson, Conn., lump sum price for grading, $14,350, 75 cts. per lin. ft. for telford and $1 per lin. ft. for rubble drain.

The Billings Sidewalk & Coal Co., Hartford, was the only bidder on the work of cutting back curbs and street corners and supplying new granite headers, advertised for by the Board of Contract and Supply. The figures were: Curved curbing, $2 [illegible] per lin. ft.; granite headers, $2; new flagging, 22 cts. per sq. ft.; straight 6-in. curbing, $1.75 per lin. ft. The following bids have been received for relaying the asphalt pavement on portions of Main St.: Hartford Paving & Construction Co., Hartford, Conn., $1.59 per sq. yd. for asphalt; $15.60 per cu. yd. for asphalt binder; $6.35 per cu. yd. for Portland cement concrete. Barber Asphalt Paving Co., Philadelphia, Pa., $1.7[illegible], $16 and $6.50.

*FORT H. G. WRIGHT (New London, Conn., post-office), N. Y.—We are officially advised that bids were received on April 13, by Capt. F. T. Arnold, Constr. Q. M., New London, Conn., for the construction of approximately 1,700 lin. ft. of macadam road and 1,100 sq. yds. of concrete sidewalk at Fort H. G. Wright, N. Y. The bids follow: Bryan F. Mahan, New London, $9,8[illegible]; Eldredge Construction Co., Mystic, Conn., $9,244; Ricardo R. Morgan, New London, Conn., $8,770.

*MONROE, N. Y.—Bids are asked by the Trustees of the Village of Monroe until 8 p. m., April 29, for the construction of cement sidewalks (about 10,000 sq. ft.), driveways, curbs and gutters, in the Village of Monroe, N. Y. T. F. B. Carpenter is Village Clerk. Fred J. Knight is Engr.

AMSTERDAM, N. Y.—The contract for paving East Main St. has been awarded to M. F. DOLLARD, of Albany, at $2.27 per sq. yard. Cost, $17,155. F. E. Crane is City Engr. Bids were received on April 5.

DUNKIRK, N. Y.—Bids will be received until May 3 for grading and paving or macadamizing Swan and Fox Sts., about 9,560 sq. yds. J. M. Hackett is City Engr. R. H. Heppell, City Clk.

NEW YORK, N. Y.—Bids are asked by Lawrence Gresser, Pres. of the Boro. of Queens, until 11 a. m., April 26, for regulating, grading and laying sidewalks (where not already laid) on various streets in the Boro. of Queens.

Bids are asked until 11 a. m., April 27, for (1) regulating, grading, curbing and laying sidewalks on 56th St., from Sixth Ave. to Seventh Ave.; (2) for regulating, grading, curbing and laying sidewalks, where not already done, on Ave. H, from Coney Island Ave. to the right-of-way of the Brighton Beach R. R. Co., together with all work incidental thereto; (3) for fencing vacant lots on the north side of Grand St. Extension, between South First and Grand Sts., and on various other streets in the Boro. of Brooklyn, with a wooden rail fence 6 ft. high.

OLEAN, N. Y.—Bids are asked by the Commissioners of Public Works of the city of Olean, N. Y., at the office of George Ball, Supt. of Streets, in the City Building, until 8 p. m., May 2, for the construction of a vitrified brick pavement on concrete foundation in South Union St., from the south line of Henley St. to the south line of Green St. The approximate amount of pavement to be laid is 4,100 sq. yds., and the curbing to be set, 1,800 lin. ft.

*WESTFIELD, N. J.—Bids are asked by the Town Council until 8.15 p. m., May 16, for street improvements. Lloyd Thompson is Town Clerk; A. W. Vars, Town Surv., 121 Prospect St., Westfield, N. J.

WILKINSBURG, PA.—Bids will be received at the office of Frease & Sperling, Carl Bldg., Wilkinsburg, Boro. Engrs., until 3 p. m., April 23, for grading, curbing and paving with vitrified paving brick the following streets: Peebles St., from end of paving to Kelly Ave., 585 sq. yds.; Anderson St., from end of paving to Sadie St., 880 sq. yds.

PITTSBURG, PA.—We are officially advised that the BARBER ASPHALT PAVING CO., Bessemer Bldg., Pittsburg, has the contract, at $12,139, to pave Coltart Sq. OTT BROS. CO., 414 Washington Ave., South Side, has the contract for work on Hallock St., at $8,786, and THOMAS CRONIN, South 17th and Muriel Sts., for work on Labelle St., at $4,857. Bids were received on April 5. N. S. Sprague is Supt. Bureau of Constr., Pittsburg.

*WASHINGTON, D. C.—Bids are asked by the District Commissioners until 2 p. m., April 26, for laying gutters and asphalt macadam pavement and setting curb on Thirteenth St., N. W., between Euclid St. and Park Road, District of Columbia.

WASHINGTON, D. C.—The Commissioners of the District of Columbia opened bids on April 14 for grading S St. N. W., between Second and Third Sts., as follows: I. H. Fisher, 27 cts. per cu. yd.; George Hyman, 64 cts.; Holton Construction Co., 69 cts.; R. E. Boisseau, 95 cts.; E. G. Gummel, 55 cts.; Urban & Bradley, 66 cts.; all of Washington, D. C.

DOVER, TENN.—Bids are asked until 10 a. m., April 25, by Maj. J. T. Davidson, Depot Q. M., until 10 a. m., April 25, for repairs to government roadway at the Fort Donelson National Cemetery, Dover, Tenn.

ASHLAND, OHIO.—Bids will be received at the office of the Commissioners of Ashland County, Ohio, until nooon, April 26, for grading and macadamizing .95 miles of road in Vermillion Township. J. C. Wonders is State Highway Comr., Columbus, Ohio. Estimated cost, $6,960.

COLUMBUS, OHIO.—Bids will be received until May 10 at the office of H. K. Lindsey County Surv., for furnishing and placing crushed limestone screenings on Hess Pike, a distance of about ¼ mile in Clinton and Perry Townships.

CINCINNATI, OHIO.—Bids will be received at the office of the Board of County Commissioners until noon, May 13, for the following county work: Under Specifications No. 38, for improvement of the Conrey

Road, from Company Mill Road to Butler County line, in Sycamore Township. Fred Dreihs is Clerk.

RUSHVILLE, IND.—We are officially advised that bids were received by the Commissioners of Rush County on April 4 for the construction of macadam road in Richland Township. Jesse M. Stone is Audr. EMSWILLER & JACKSON, of Connersville, Ind., secured contract at $11,779.

MUNCIE, IND.—Bids were received by the Commissioners of Delaware County on April 8 for the construction of the McCreery gravel road in Harrison Township. Joseph E. Davis is County Audr. We are officially advised that the contract has been let to JOHN W. McCREERY, at $3,150.

COVINGTON, IND.—We are officially advised that bids were received by William B. Gray, Audr. of Fountain County, on April 5, for the construction of a gravel road in Millcreek Township. The contract will be let in May.

INDIANA.—Bids for the construction of gravel roads in Indiana will be received at the following places and dates:

May 3, at 10 a. m., by the Commissioners of Grant County, at Marion, Ind., for the construction of a gravel road and a stone road. A. G. Stout, County Audr.

May 3, at 11 a. m., by the Commissioners of Wabash County, at Wabash, Ind., for the construction of two macadamized roads in Lagro Township. J. P. Noftzger, County Audr.

May 3, at noon, by the Commissioners of White County, at Monticello, Ind., for the construction of a gravel road in Big Creek Township; for three gravel roads in Liberty Township. A. G. Fisher, County Audr.

May 3, at 2 p. m., by the Commissioners of Greene County, at Bloomfield, Ind., for the construction of a macadamized road in Center Township. Peter M. Cook is County Audr.

May 3, at 2 p. m., by the Commissioners of Grant County at Marion, Ind., for the construction of a stone road in Jefferson Township and a stone road in Monroe Township, and for the construction of a brick roadway through the town of Fairmount. A. Y. Stout, County Audr.

May 4, at noon, by the Commissioners of Sullivan County, for the construction of 7,993 ft. of stone road in Curry Township, being Roads Nos. 2 and 5 of said system. Ben C. Crowder, County Audr.

May 6, at 11 a. m., by Commissioners of Tippecanoe County, at LaFayette, Ind., for the construction of a gravel road in Wabash Township. J. P. Foresman, County Audr.

May 12, at noon, by the Commissioners of Franklin County, at Brookville, Ind., for the construction of a gravel road on the line between Saltcreek and Metamora Townships. Charles A. Miller, County Audr.

May 23, at 2 p. m., by Commissioners of Newton County, at Kentland, Ind., for the construction of a system of stone roads in Washington Township. E. R. Bringham, County Audr.

May 23, at 11 a. m., by Commissioners of Clark County, at Jeffersonville, Ind., for the construction of a gravel road. Peter Nachand, County Audr.

DECATUR, IND.—We are officially advised that bids were received on April 4 by the County Commissioners at Decatur for constructing four macadam roads. H. S. Milchaud is County Audr. Contracts have been awarded as follows: Beer gravel road, MERRYMAN & FUGATE, of Munroe, Ind.; Maitz road, C. C. MUSSER, Berne, Ind.; Magley road, ERIC STONE CO., Van Wert, Ohio; Adler road, E. H. FAUST, Decatur, Ind.

LA FAYETTE, IND.—The Board of Public Works will soon ask for bids for paving the following streets: Kossuth, 15th, Naylor and 29th Sts.

RICHMOND, IND.—The Board of Public Works has ordered the City Engineer to prepare plans for paving North Tenth St. and South 14th St. with the tarvia binder. Bids will be in order soon. Homer Hammond is Chn. Bd. of Pub. Wks.

FRANKFORT, IND.—Following are the contracts for gravel roads as let on April 9 by Board of Commissioners of Clinton County, at Frankfort, Ind.: John Whitaker Road in Kirklin Township, to NEES & CO., of Frankfort, Ind., at $1,943; John Earlywine Road in Sugar Creek Township, to NEES & CO., of Frankfort, at $3,219; M. B. Fisher Road on line between Washington and Union Townships, to NEES & CO., of Frankfort, at $5,343; Isaac Gochenour Road on line between Owen and Ross Township, to NEES & CO., of Frankfort, at $3,192; Lawrence W. Seaman Road on line between Michigan and Union Townships, to L. W. SEAMAN, of Frankfort, at $800. C. F. Cromwell is County Audr. There were 15 bidders in all.

FLINT, MICH.—The Common Council has awarded contracts for paving as follows: J. T. LYNCH, with brick and asphalt filler, Harrison St., $14,019, and to P. RYAN & SON, with brick, Detroit St., at $24,805.

MILWAUKEE, WIS.—At a recent meeting of the Park Board WILLIAM H. GILLEN was awarded the contract for building the 600 ft. extension to Lake Drive, at $25,000.

DULUTH, MINN.—The City Engineer has submitted estimates to the Board of Public Works for paving East Fourth St. as follows: Betweeen 14th and 23d Aves., with granitoid, $72,212; asphalt, $79,565; creosote blocks, $95,196; tar macadam, $74,183, and between 23d and 27th Sts., granitoid, $39,644; tar macadam, $39,175; creosote blocks, $45,231, and of asphalt, $39,945.

RED WING, MINN.—Bids will be received until April 27 by the Board of Public Works for paving Broad and Levee Sts., in all about 10,000 sq. yds. A. E. Rhame is City Engr.

FORT LEAVENWORTH, KAN.—We are officially advised that bids were received by Capt. William D. Davis, Q. M., on April 6, for the construction of concrete walks, curbs and gutters, etc., at Fort Leavenworth, Kan. Vernon E. Mitchell was lowest bidder.

TOPEKA, KAN.—The KANSAS BITULITHIC CO., American Bank Bldg., Kansas City, Mo., has a contract to pave South Lawrence Ave. with 11,905 sq. yds. of bitulithic pavement.

ST. LOUIS, MO.—Bids will be received until April 25 by the Board of Public Improvements for paving with creosote blocks Olive St., from Fourth to Twelfth Sts. W. B. Dryden is Secy.

SHERMAN, TEX.—Bids will be received until May 2 by Barney C. Kreager, City Secy., for brick, rock asphalt, bitulithic, creosoted wood block and petrolithic pavings, requiring 21,650 sq. yds. pavement, 8,432 lin. ft. concrete or stone curb.

TEXARKANA, TEX.—The J. W. Maxcy Co., 301 West Broad St., Texarkana, advises us as follows: "We have started work on our Bowie County road contract, which comprises the construction of about 50 miles of county road, and about ten miles of city streets, and that we need teams for slip and wheel scraper work, and might consider subletting a portion of the grading."

CLINTON, OKLA.—Bids will be received by C. G. Welch, Mayor, until May 3, for the construction of about 67,000 sq. yds. of asphalt paving on 5-in. concrete base, with necessary grading and storm sewers; also 20,000 lin. ft. concrete curb and gutter combined, 5,000 lin. ft. concrete curb and 5,000 lin. ft. concrete gutter. J. L. O'Hearn is City Engr.

WENATCHEE, WASH.—Bids will be received by Sam R. Sumner, City Clk., until May 3 for grading, curbing and paving with brick, creosoted wood block, asphalt or other suitable material.

ABERDEEN, WASH.—We are officially informed that bids were received on April 6 by P. E. Clark, City Clk., for paving and constructing sidewalks, curbs, and gutters on portions of Market and K Sts. Estimated cost, $35,000. The contract for 6,670 yds. of sidewalks has been let to the ABERDEEN CONSTRUCTION CO., at $1.05 per sq. yd. The Barber Asphalt Paving Co. bid $2.15 per sq. yd. for pavement. About two miles of paving will be let within 90 days.

Bids are asked by P. F. Clark, City Clerk, until April 27, for about 70,000 yds. of grading, drainage, etc. Charles W. Ewart is City Engr.

LOS ANGELES, CAL.—The Board of Supervisors will call for bids for grading, paving and culvert work on two miles of highway on the Monterey Pass Road.

The BARBER ASPHALT PAVING CO. has been awarded a contract for improving Whittier Road, at $99,816.

GLOBE, ARIZ.—We are officially advised that bids were received on April 6 by the Board of Control, Territory of Arizona, at Phoenix, for constructing a highway between the towns of Roosevelt and Globe, Gila County. The contract has been let to R. TOOHEY for 28 miles of work. J. B. Girard is Territorial Engr.; J. J. Riggs is Secy.

PHOENIX, ARIZ.—Bids are asked until April 25 by the Board of Control, Robert A. Craig, Secy., for constructing 13 miles of territorial roadway between Prescott and Phoenix. J. B. Giraud is Territorial Engr.

PORT ARTHUR, ONT.—Bids will be received until April 30 for the construction of 50,000 sq. yds. of sheet asphalt or asphalt block pavement on concrete foundation. J. McTeigue is City Clerk.

PRINCE ALBERT, SASK.—Bids will be received until April 23 for the construction of about 10,500 lin. ft. of concrete sidewalk and crossing. G. G. Davidson is City Clk., Prince Albert.

SASKATOON, SASK.—Bids will be received until April 25 for the construction of concrete sidewalks. William Hopkins is Mayor, Saskatoon.

MANUFACTURING PLANTS.

(denotes that this work is advertised in Engineering News.)*

NEW BEDFORD, MASS.—It is announced that the mill to be erected in New Bedford by John C. Sharp and Robert Schofield will be on land at the south end of that city at the present time owned by Joseph T. Kenney, and that the site is on Dartmouth St., between Rockdale Ave. and Bolton Road. The promoters of the new mill desired land large enough to allow the building of additions to the original plant should such a course seem advisable in the future. The mill will be for the manufacture of cotton yarns, but details as to the spindleage or the capitalization have not been given out.

NEW HARTFORD, N. Y.—The New Hartford Cotton Mfg. Co. has certified that it has increased its capital stock from $150,000 to $200,000. The company will build an addition to its plant.

ROCHESTER, N. Y.—Gordon & Madden, Archs., 300 Sibley Bldg., have completed plans for 4-story brass foundry and machine shop, 60 × 60 ft., of brick and mill construction, to be erected by Henry Wray & Son, Inc., at 193-195 Mill St.

BUFFALO, N. Y.—We are officially advised that the DUROLITHIC CO., 460 Ellicott Sq., Buffalo, N. Y., has been awarded the contract for erecting the King Sewing Machine Co.'s proposed building, Buffalo, N. Y. Construction is to be of reinforced concrete, brick and steel; size, 450 × 250 ft., with a 5-story office section, 80 × 120 ft. Power plant with generators, fire sprinkler system, electric work, plumbing, heating and ventilating system will be installed. Martin C. Schwab is Consult. Engr., 161 State St., Chicago, Ill.

BUFFALO, N. Y.—The Beaver Mfg. Co., William F. MacGlashan, Pres., 228 Perry St., has let contract to MORRIS & ALLEN, Builders' Exchange, for erection of its proposed manufacturing plant, N. Y. C. R. R. and Military Road, North Buffalo. The main building will be 100 × 280 ft., two warehouses, 70 × 420 and 60 × 250 ft., respectively; indurating building, 40 × 40 ft.; generating building, 30 × 40 ft.; powerhouse, 40 × 42 ft.; office building, 80 × 80 ft. All will be 1-story, of reinforced concrete. Cost, $60,000. G. Morton Wolfe, 638 Ellicott Sq. Bldg., is Arch.

The Charles Berrick Sons Co., 1151 Main St., will erect a 4-story brick factory building at Grosvenor St. and the Pennsylvania R. R. for the Charles Berrick Estate.

CAMDEN, N. J.—The Castle Kid Co. will enlarge its plant at Sixth St. and Broadway, Camden, by the erection of a 3-story building of reinforced concrete, measuring 250 × 72 ft., and two 1-story additions, 92 × 175 ft., and 66 × 90 ft., respectively. Cost, $100,000.

ERIE, PA.—Wilson, Harris & Richards, Drexel Bldg., Philadelphia, Pa., Consult. Archs., are planning 70 buildings to be erected in Erie for the General Electric Co., at a cost, including equipment, of about $15,000,000. When completed the plant will cover a square mile of ground. George E. Williams, Schenectady, N. Y., is Gen. Mgr. Noted last week.

PHILADELPHIA, PA.—WILLIAM R. DOUGHERTY, 1604 Sansom St., Philadelphia, has been awarded a contract for a 3-story brick and concrete factory, 88 × 76 ft. at 52d and Medina Sts., for Chambers Bros. Co. The cost will be $45,000.

CRAMP & CO., Commonwealth Bldg., have a contract to build a 4-story addition, 60 × 150 ft., to the plant of the Quaker City Chocolate & Confectionery Co., at the southwest corner of Germantown and Susquehanna Aves. Cost, $80,000.

NORFOLK, VA.—Dr. J. J. France and George Matthew King are interested in plan to organize company with capital stock of $250,000 for erection of a cotton mill.

ROCKINGHAM, N. C.—The Hannah Pickett Mill, of Rockingham, N. C., has awarded contract to T. C. THOMPSON & BROS., of Birmingham, Ala., and Charlotte, N. C., for the erection of an addition. It will be 100 × 235 ft., and will be equipped with 400 looms from the shops of the DRAPER CO., of Hopedale, Mass. The enlargement is being effected in order to permit the Pickett management to weave the output of its 10,800 ring spindles into cloth.

WINSTON-SALEM, N. C.—The Inverness Mills Co., of Winston-Salem, N. C., has awarded contract to J. F. ANGE, of Winston-Salem, for the erection of its buildings, the main structure of which will be 100 × 200 ft., two stories high. Boiler and picker houses and warehouses will be erected also. C. K. Makepeace & Co., of Providence, R. I., are the architects furnishing the plans and specifications. The mill building will be of brick and timber. About 500,000 bricks will be used. The Inverness Mill Co. is a $200,000 company and Lawrence McRae is Treas. High grade print cloth will be manufactured.

SPARTANBURG, S. C.—It has been arranged to organize a company with a capital stock of $400,000 to build a cotton factory at Chesnee, S. C. This is a new town on the Carolina, Clinchfield & Ohio Ry. It is 18 miles north of Spartanburg, S. C., and W. E. Burnett, Pres. of the First National Bank of Spartanburg, is to be Pres. of the proposed company. Others interested are to be John B. Cleveland, J. N. Cudd and R. K. Carson, of Spartanburg. This item was erroneously published last week under Spartanburg, Pa.

COLUMBIA, S. C.—The Glencoe Cotton Mill, of Columbia, S. C., has awarded contract to T. C. THOMPSON & BRO., of Birmingham, Ala., and Charlotte, N. C., for the erection of its mill building, which will cost about $20,000. This structure has been planned by Shand & Lafaye, of Columbia, S. C. It will be equipped with 5,000 spindles, driven by 225 electrical HP. for the production of cotton twine and warp. The machinery will cost about $80,000. The Glencoe Cotton Mill has a capital stock of $125,000 and George M. Berry, of Columbia, is Vice-Pres.; T. H. Wannamaker, of Orangeburg, S. C., is Pres.

ROCK HILL, S. C.—The Hamilton Carhartt Cotton Mill, of Rock Hill, is planning the erection of an additional mill. It has engaged Jones & Walker, of Rock Hill, to prepare plans and specifications for the proposed building, and these have been sent to Detroit, Mich., for the inspection of Hamilton Carhartt, Pres. of the company. The present mill has an equipment of 8,000 ring spindles, 96 broad looms, 154 narrow looms, etc., driven by electric power, and producer denims.

GREAT FALLS, S. C.—The Republic Cotton Mill, of Great Falls, S. C., has awarded contract to T. C. THOMPSON & BRO., of Birmingham, Ala., and Charlotte, N. C., at about $100,000, for the erection of a number of buildings. These are in connection with the company's mill plans. They will include residences for the company's president, Robert S. Mebane, and Hal B. Mebane, Secy.-Treas., both of Graham, N. C.; 20 3-room houses for operatives, 15 6-room houses for operatives, three overseers' dwellings and a superintendent's residence. The company is making progress with the erection of its 25,000 spindle and 1,000 loom mill, which is to be followed by the erection of two more mills for 75,000 spindles and looms to match. This will make about 100,000 spindles and 4,000 looms.

ATLANTA, GA.—The Pratt Engineering & Machine Co., Atlanta, is arranging for the erection and equipment of industrial plants. A recent one is for a fertilizer plant which the Consolidated Phosphate Co., I. Bashinski, Pres., will erect at a cost of $75,000. The main structure will be about 120 × 450 ft. and will be equipped for an annual capacity of 30,000 tons of acid phosphate, which may be increased to 40,000 tons if the demand warrants it.

VILLA RICA, GA.—J. T. Fuller, of Villa Rica, Ga., has decided to establish his proposed knitting mill here. He will erect a suitable building and install machinery for knitting hosiery. Plans have been completed for the building. The enterprise will represent the investment of $10,000.

NEW ORLEANS, LA.—Organization has been effected by the National Hosiery Mill, with Erhard Mayer, Pres. This company was previously incorporated with a capital stock of $50,000 and has secured quarters. It will install sufficient knitting machines to provide for a daily output of 125 dozen pairs of hose, employing about twenty operatives at the start. Electrical power will be used, and there will be an equipment for dyeing and finishing the hosiery manufactured.

BEECH GROVE, IND.—Work will soon be commenced on the construction of the proposed Cleveland, Cincinnati, Chicago & St. Louis Ry. Co.'s car shops at Beech Grove, Ind., an appropriation of $1,000,000 for which was recently made. The plant will be a counterpart of the locomotive works, which has been in operation over two years, and which cost $1,000,000. It is proposed to have the entire plant in operation before the close of this year. W. Garstang is Supt. of Motive Power, Indianapolis, Ind.

GARY, IND.—The U. S. Steel Corporation has let contracts for most of the work on its proposed tin, sheet and plate mills at Gary. Instead of erecting a plant with 100 mills, as was at first proposed, the plans on which contracts have been let call for a plant of 140 mills. The AMERICAN BRIDGE CO., 30 Church St., New York, has been awarded the contract for steel and structural work of the plant. Ground has been broken.

STEUBENVILLE, IND.—The Steuben Brick & Tile Co., recently incorporated, will soon ask for bids for the construction and equipment of a brick and tile plant. Chester O. Klink, Pres.

MONTIPELIER, IND.—The Montipelier Cup & Metal Works Co. is preparing to construct a building in which to install a 60-bbl. flour mill. Bids will be in order soon.

MUNCIE, IND.—The Hibbitts Mill Co., recently incorporated with $50,000 capital, will soon ask for bids for the erection of a flour mill and grain elevator. Wallace Hibbitts is Pres.

KENTLAND, IND.—McCray Morrison Co. will soon ask for bids for the construction of a transfer elevator on the site of the building recently destroyed by fire. Estimated cost, $60,000.

ELKHART, IND.—The American Coating Mills Co., Charles C. Colbert, Pres., has purchased a site on which to erect a factory. Bids will be called for in a short time.

DETROIT, MICH.—B. C. Wetzel & Co., Archs., 404 Hammond Bldg., Detroit, are preparing plans and specifications for a furniture factory, four stories and basement, for the Detroit Show Case Co., Herbert Mallott, Secy., 476 Fort St., West. Stock brick, bedford cut stone, mill construction, composition roof and electric fixtures will be used in construction.

Baxter & O'Dell, Archs., 1024 Hammond Bldg., Detroit, have prepared plans and specifications for a 2-story factory, 152 × 128, 152 × 132 and 152 × 33 ft., for the Brush Runabout Co., Fred. A. Harris, Secy., 1214 Baltimore Ave., Detroit. Construction will be of stock and sand lime brick, Bedford cut stone, composition roof, structural iron and electric fixtures will be used in construction.

T. Palmer Stephens, Secy. of the Roe-Stephens Mfg. Co., Clayton Ave. and M. C. R. R., announces that the company will rebuild immediately the factory that was destroyed by fire at a loss of $250,000.

The Enterprise Foundry Co., Charles W. Carolin, Mgr., 1137 Warren Ave., East, is letting contracts for its proposed core house, 68 × 105 ft., to be built of stock brick, Bedford cut stone, with composition roof and electric fixtures will be used in construction.

DETROIT, MICH.—C. F. J. Barnes, Arch., 307 Tolsma Bldg., Detroit, has let the masonry contract for the New England Pie Co., Michigan Ave. and 16th St., for its 2-story and basement factory building, 95 × 83 ft., to GOODENOW & GINN, 435 Vinewood Ave., Detroit.

B. C. Wetzel & Co., Archs., 404 Hammond Bldg., Detroit, have let the following contract for the Detroit Granite Co., James T. McCormick, Mgr., 442 Fort St., West, for the 2-story plant, 53 × 125 ft., to be erected: Iron and steel work to RUSSEL WHEEL & FOUNDRY CO., Joseph Campeau and M. C. R. R.

The Princess Mfg. Co., Charles W. Moore, proprietor, 34 Congress St., is contemplating a 3-story addition to the present factory building at 215 Larned St., East. The company will also install a power plant equipment.

George W. Graves, Arch., 56 Rowland Bldg., Detroit, is preparing plans and specifications for a 2-story factory building, 270 × 100 ft., for the Detroit Shear Co., J. R. Searight, Pres., 139 Beaubien St. The building is to be located at Greenwood St. and G. T. R.

Baxter & O'Dell, Archs., 1024 Hammond Bldg., Detroit, have let the following contracts for the Van Dyke Motor Car Co., Leverette and Junction Aves.: Cut stone, to the DETROIT FIREPROOF TILE CO., 87 Congress St., West; structural iron work, to WHITEHEAD & KALES, Beecher St. and M. C. R. R.; painting, to H. A. OTTO, 964 Canfield Ave., East.

BAY CITY, MICH.—Clarke & Munger, Archs., 414 Shearer Bros. Bldg., Bay City, have let the following contracts for the World's Star Knitting Co., of Bay City, for the addition to the present factory building: Structural iron work, to NORTHWESTERN ARCHITECTURAL IRON CO., of Chicago, Ill.; carpentry, to LEWIS MFG. CO., of Bay City; plumbing, to SULLIVAN HEATING & PLUMBING CO., Bay City.

SAGINAW, MICH.—Fred. Beckbissinger, Arch., Saginaw, Mich., is preparing plans and specifications for a chemical plant for the Saginaw Glass Co., of Saginaw. There will be three separate buildings, 108 × 124, 83 × 183 and 90 × 103 ft., of mill construction.

MILWAUKEE, WIS.—The Charles H. Stehling Co. has purchased a site at Fourth and Poplar Sts., costing $31,000, and will erect a 3-story factory building, of reinforced-concrete construction, with engine and boiler and a large stack. Cost, $55,000.

The Dickson Malleable Iron Co., recently incorporated with a capital stock of $150,000, will erect a foundry building, 80 × 500 ft., 1-story. An office, annealing shop, and warehouse buildings will also be built.

APPLETON, WIS.—The capacity of the Lake Superior Knitting Works, Appleton, Wis., will be doubled by the erection of an addition at the east end of the present mill. The new structure will be 140 ft. long, three stories, and will extend to the office of the Appleton Woolen Mills.

DULUTH, MINN. — The AMERICAN BRIDGE CO., of Minneapolis, has secured the contract for furnishing 26,000 tons of structural steel, to be used in the construction of the plant of the Minnesota Steel Co. in Duluth.

ST. PAUL, MINN.—The Schurmeier Motor Car Co., F. I. Whitney, Pres., awarded the contract for the general construction of its pressed brick and cut stone automobile factory on University Ave., to CHARLES SKOOGLUN, 1105 Jessie St., St. Paul. Buechner & Orth, Manhattan Bldg., are Archs. Cost, $35,000.

ST. LOUIS, MO.—The John Nooter Boiler Works Co. has awarded contract to DANIEL SEEGERS, Frisco Bldg., St. Louis, for erection of a boiler plant. The main building will be brick, fireproof, 65 × 160 ft.; 30 ft. high. Cost, $10,000. The machinery will be driven by electricity.

OKLAHOMA CITY, OKLA.—The Rogers Cleaning & Gin Co., Memphis, Tenn., will combine with Sherman Machine & Iron Works and will establish a cotton gin and iron works. It will erect a gin plant, two stories, concrete, reinforced with steel, 100 × 150 ft. The foundry and machine plant will consist of two buildings, each 75 × 100, 35 ft. high, concrete, with steel reinforcements, lantern roofs, steel-framed wire-woven glass sides, equipped with traveling crane. The company will also erect a storage warehouse of reinforced concrete, 75 × 150 ft.

SEATTLE, WASH.—It is the intention of the International Fiber Co. to establish a plant at Seattle, Wash., for the manufacture of toweling, linen, crashes and twines. A mill for the preparation of raw material will be erected during the summer, the company putting in a flax crop this spring of sufficient size to warrant the erection of such a mill. This will be preparatory to building a mill for the manufacture of the finished products.

PORTLAND, ORE.—J. M. WALLACE has been awarded the contract for the erection of a 3-story building for the New York Bakery on the corner of East Seventh and Belmont Sts., at $40,000.

SANTA BARBARA, CAL.—Southern Pacific R. R. Co. has appropriated $20,000 for the construction of a reinforced-concrete roundhouse here. H. V. Platt is Supt.-in-Charge.

MONTREAL, QUE.—C. A. Mitchell and David Ogilvy, Archs., Inglis Bldg., Montreal, have completed the plans for the building about to be erected by the Blumenthal Estate, fronting 90 ft. on St. Catherine St., near Bleury St., and running along Balmoral St., a distance of 120 ft. The structure is to be built of reinforced concrete and faced with terra cotta, the whole to be a loft-building and intended for light manufacturing. The contract for this building has just been awarded to the CHARLES THACKERAY CO., 242 St. James St., and it is estimated that the cost will be about $200,000, and if the Blumenthal Estate decides to go ahead with an enlarged plan the expenditure will be from $600,000 to $700,000.

TORREON, MEXICO.—At a meeting of the stockholders of the Compania Cementos Hidalgos, S. A., held here, it was decided to increase the capital stock from $750,000 to $1,500,000 and to double the capacity of the cement plant. This will give the plant a daily capacity of 2,400 bbls. of cement. F. F. Niggli is Gen. Mgr.

MISCELLANEOUS CONTRACTS.

(* *denotes that this work is advertised in Engineering News.*)

U. S. RECLAMATION SERVICE.—All news relative to canal projects, etc., will be found under Water Supply—Irrigation.

BARB WIRE, SHELL BALLASTING.—Houston, Tex.—See item under Electric Railways.

BRICK.—Spokane, Wash.—Bids will be received until 2 p. m., April 22, by John Gifford, City Purchasing Agt., for 80,000 hard brick, to be delivered as needed.

*BLUE-PRINTING MACHINE.—West Point, N. Y.—Bids will be received until 2 p. m., May 3, by the Quartermaster, West Point, for one continuous electric blue printing machine.

SUPPLIES.—Dover, N. J.—Bids will be received by the Commanding Officer, Picatinny Arsenal, Dover, until May 16, for furnishing during the fiscal year ending June 30, 1911, steel, iron, lumber, electrical goods, etc.

*GYMNASTIC APPARATUS.—West Point, N. Y.—Bids will be received by the Quartermaster, West Point, until 2 p. m., May 6, for furnishing and installing gymnastic apparatus in the new gymnasium, West Point, N. Y.

RIPRAP.—Chicago, Ill.—Bids will be received until April 22 by John J. Hamberg, Chn. Pub. Wks., for furnishing, delivering and unloading riprap stone during the period beginning June 1, 1910, and ending Sept. 30, 1911.

ROAD OIL.—Boston, Mass.—Bids will be received until April 22 by the Park Commissioners, Boston, R. S. Peabody, Chn., for furnishing f. o. b. Forest Hills Station, on the N. Y., N. H. & H. R. R., about 20,000 gals. of road oil.

CONDUIT.—Toronto, Ont.—The Construction Department of the SAFETY INSULATED WIRE & CABLE CO., 114 Liberty St., New York, has been awarded a contract for laying conduit at railroad crossings, Toronto, at $11,387.

ROAD OIL. — Milwaukee, Wis. — The STANDARD OIL CO. has been awarded the contract for furnishing about 500,000 gals. of street oil to be used in sprinkling the streets of the city. The price was 2.8 cts. per gallon, amounting to about $14,000.

ROAD OIL.—Pittsburg, Pa.—Bids will be received until April 25 by R. J. Cunningham, County Comptroller, for furnishing about 250,000 gals. liquid asphalt road oil, to be delivered at any railroad point or points in Allegheny County. S. D. Foster, County Road Engr., Pittsburg.

DREDGING.—Chatham, Ont.—Bids will be received until noon, April 27, by the Council of the Township of Chatham for constructing a large outlet drainage work. The engineer's estimate (exclusive of bridges and incidental expenses) for excavating by dredge work, is $31,400. A. McArthur, Clk. of Council.

DRAINAGE.—Mitchell, S. Dak.—Bids will be received by H. B. Anderson County Audr., at Mitchell. until April 26 for constructing drainage Dist. No. 6; approximately 5,275 ft. of 10 to 18-in. tile; also for drainage Dist. No. 5, consisting of 63,140 yds. excavation. The Dakota Engineering Co., Engrs., Mitchell, S. Dak.

REPAIRING FERRY STRUCTURES.—New York, N. Y.—Bids will be received until noon, April 26, by the Department of Docks and Ferries on Contract No. 1219: For furnishing all the labor and materials required for reconstructing and repairing the ferry structures at the foot of East 23d St., East River, Boro. Manhattan.

FIREBOAT.—Baltimore, Md.—Contract for new fireboat has been awarded to the SKINNER SHIPBUILDING & DRYDOCK CO., of Baltimore, at $110,000, by the Board of Awards. The company agreed to wait until the ordinance of estimates for 1911 shall have been passed to get the balance in excess of the appropriation. The total cost of the boat will be $115,500, for besides the contractors' price, the architect, W. I. Babcock, of New York, will receive a fee of $5,500. The appropriation was $100,000.

*DREDGING.—St. Paul, Minn.—Bids were received on April 11 by the Board of Water Commissioners for dredging the West Arm of Vadnais Lake, situated about seven miles from the city of St. Paul. The work will consist of about 1,500,000 cu. yds. The material is mostly vegetation and peat. John Caulfield, Secy. Bd. Comrs. The bids were as follows: E. Bodette, Toledo, Ohio, 22 cts. per cu. yd.; D. C. Stephens, Cleveland, Ohio, 15.93 cts.; LaCross Dredging Co., Minneapolis, 13.5 cts.; W. J. Hoy Construction Co., St. Paul, 18 cts.

DOCK REMOVAL.—New York, N. Y.—Bids were received on April 16 by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for removal of a portion of Cob Dock at the Navy Yard, New York, as follows: R. G. Packard Co., 130 Pearl St., New York, (item 1) $42,630; (2) $34,000; (3) $8,650. International Contracting Co., 17 Battery Pl., New York, (1) $35,699; (2) 25 cts.; (3) $7,324. Coastwise Dredging Co., Norfolk, Va., (2) 39.7 cts. Phoenix Construction Co., 41 Park Row, New York, (1) $57,464; (2) 43.75 cts.; (3) $7,847. Snare & Triest Co., 143 Liberty St., New York, (1) $49,430; (2) 39 cts.; (3) $9,800.

U. S. POSSESSIONS.

(* *denotes that this work is advertised in Engineering News.*)

*LOCK GATES.—Panama.—Bids are asked until 10.30 a. m., June 15, by Capt. F. C. Boggs, Gen. Purchasing Officer, Isthmian Canal Comn., Washington, D. C., for furnishing and erecting 46 mitering lock gates of two leaves each and of certain fixed parts for same, and for furnishing certain repair parts.

ROCK AND SAND BARGES.—Panama.—Bids were received as follows on April 18 by the Isthmian Canal Commission, Washington, for the construction of four rock and sand barges: John H. Dialogue & Son, Camden, N. J., two at $54,900 each; four at $53,950 each; 9½ months. Fore River Shipbuilding Co., Quincy, Mass., $55,000 each; 333 days. Pusey & Jones Co., Wilmington, Del., $61,482; 306 days. William Cramp & Sons Ship & Engine Building Co., Philadelphia, $59,700 each; 195 days. Newport News Shipbuilding & Drydock Co., Newport News, Va., $51,000; 210 days. J. H. Loud, 23 South St., New York, bid on one second-hand barge, at $45,000, delivered New York.

CONTRACT PRICES.

PAVING:—Perry, Iowa.—Bids were received by the City of Perry April 15 for the construction of the following work: Contract No. 1—20,600 sq. yds. bitulithic pavement on a concrete foundation; 9,500 ft. of combined curb and gutter; 5,000 cu. yds. grading. Contract No. 2—33,700 sq. yds. creosoted block on a concrete foundation; 18,850 ft. 6 × 20-in. cement curb; 11,455 cu. yds. grading. Charles Wilson is City Engr. The bidders on Contract No. 1 were: (A) WM. HORRABIN, Iowa City, Iowa (awarded contract); (B) Kansas Bituminous Co., Kansas City, Kan.; (C) General Contracting Co., Minneapolis, Minn.; (D) Granite Bituminous Co., St. Louis, Mo. The bidders on contract No. 2 were: (A) WM. HORRABIN, Iowa City, Iowa, (awarded contract); (B) Miracle Concrete Co., Minneapolis, Minn.; (C) General Contracting Co., Minneapolis, Minn.; (D) Western Paving Co., Minneapolis, Minn.; (E) Flynn & Hanlon, Sioux City, Iowa.

The itemized bids were as follows:

Contract No. 1.	A	B	C	D	
5,000 cu. yds. grading	$0.40	$0.44	$0.47	$0.48	
9,500 lin. ft. curb	.69	.62	.75	.73	
20,600 sq. yds. bitulithic paving	2.08½	2.22	2.09½	2.10	
Overhaul	.02½	....	.02	....	
Totals	$51,506	$53,822	$52,360	$52,595	
Contract No. 2.	(A)	(B)	(C)	(D)	(E)
11,455 cu. yds. grading	$0.40	$0.47	$0.41	$0.48	$0.49
18,850 lin. ft. curbing	.43	.46½	.46	.45	.47
33,700 sq. yds. creosoted block paving	2.25	2.353	2.29	2.26	2.32
Overhaul	.02	.02½	.02½	.02	.03
Totals	$88,412	$93,345	$90,541	$90,043	$92,756

STATE ROAD WORK.—Hartford, Conn.—See item under Streets and Roads.

OILING ROADS.—Portland, Ore.—Bids were received by the Street Cleaning and Sprinkling Dept. for oiling certain streets, to prevent dust only, from the Portland Road Oiling Co. The prices per mile were as follows: Roads oiled 6 ft. wide, $42; 12 ft. wide, $118.54; 15 ft. wide, $139.95; 18 ft. wide, $151.87; 20 ft. wide, $174.92; 30 ft. wide, $257.86.

SURFACING DAM.—Boston, Mass.—Bids were received by the Commissioners of the Charles River Basin April 4 for the surfacing of the main portion of the Charles River Dam, Boston, Mass. Bids were received from: (A) COLEMAN BROS., Boston, Mass. (awarded contract); (B) F. D. Davis Co., Boston, Mass.; (C) Luke D Mullen, Charlestown, Mass.; (D) W. H. Ellis, Boston, Mass.; (E) T. H. Gill Co., Boston, Mass.; (F) John J. Falvey, Somerville, Mass.; (G) McCarthy & Walsh, East Boston, Mass.; (H) Wm. L. Miller, Boston, Mass. The itemized bids were as follows:

	A	B	C	D	E	F	G	H
5,300 cu. yds. earth excavation	$0.40	$0.35	$0.50	$0.87	$0.50	$0.80	$0.40	$0.55
20 cu. yds. borrowed earth	.60	.50	2.00	1.00	1.00	1.00	.50	.75
1,700 lin. ft. laying 8-in. vitrified pipe	.25	.40	.30	.40	.35	.60	.25	.45
900 lin. ft. laying 10-in. vitrified pipe	.30	.40	.32	.50	.40	.70	.30	.45
900 lin. ft. laying 4-in. cast-iron pipe	.25	.30	.28	.35	.50	.40	.28	.40
650 lin. ft. laying 1-in. lead pipe	.25	.30	.20	.25	.16	.30	.25	.30
1,600 lin. ft. laying fiber conduits	.12	.20	.10	.20	.25	.30	.20	.25
9 service boxes "A"	10.00	10.00	2.00	12.00	12.00	20.00	6.50	10.00
4 service boxes "B"	10.00	15.00	2.00	15.00	12.00	20.00	15.00	10.00
2 manholes "C"	50.00	65.00	50.00	50.00	60.00	50.00	60.00	50.00
46 catch-basins	20.00	20.00	15.00	18.00	25.00	20.00	16.00	15.00
2,600 cu. yds. gravel in place in walks	1.40	1.50	1.25	1.50	1.25	1.40	1.90	2.00
200 sq. yds vitrified brick gutters	2.50	2.50	2.10	2.50	2.50	2.50	2.40	3.00
2,700 sq. yds. surfacing gravel walk along basin wall	.25	.50	.15	.50	.25	.20	.25	1.50
Removing a portion of the shut-off dam	175.00	250.00	300.00	300.00	25.00	300.00	250.00	300.00
14,000 cu. yds. loam surfacing in place	1.35	1.52	1.75	1.45	1.75	1.60	1.90	1.85
Totals	$28,446	$32,170	$33,721	$34,004	$34,955	$35,605	$37,479	$42,025

Readers' Wants

If you are in the market for material, equipment or supplies, and fail to find it in our advertising pages, send us full particulars, and we will gladly put you in touch with the right parties.

A. W. GROSVENOR has established an office as consulting civil engineer, Room 311, Bank Block, Fort Wayne, Ind. He is desirous of receiving catalogs of construction equipment.

INDUSTRIAL NOTES.

THOS. CARLIN'S SONS CO. announces that the offices of the company have been removed to the Henry W. Oliver Bldg., Pittsburg.

THE UNITED STATES STEEL CORPORATION has let contracts for the construction of 140 tin mills at Gary, Ind. This will, when completed, be the largest tin plate plant in the world.

THE NEW ENGLAND GRANITE WORKS, Providence, R. I., have secured the contract for furnishing the granite to be used in the construction of the new Bankers Trust Co. Bldg., Wall and Nassau Sts., New York City. This contract involves about $100,000.

ELLIOTT & ADAMS have opened an engineering office in Montrose, Colo. The firm wil make a specialty of drainage and irrigation work, as well as general civil engineering. The senior member of the firm, Mr. H. R. Elliott, was connected with Government work and Mr. R. M. Adams has done much work as a municipal engineer.

THE BROWNING MFG. CO., Cleveland, Ohio, has recently completed, for Barge Canal contractors, two 1½-yd. scraper bucket excavators with 75 ft. booms. One of the same size has been purchased by a placer miner in Arizona and a [illegible] yd. bucket machine is being built for irrigation work in Nebraska.

THE L. E. OTTE CO. has opened an office at 522 Monadnock Block, Chicago, and will deal in railway equipment and contractors' plants, including locomotives, cars, steam shovels, cranes, rails, etc. The company will both sell and purchase material of this kind, and announces that it has a large stock already on hand.

CUSTOMS RECEIPTS for four of Canada's largest ports increased approximately 40% in the year ending March 31st, 19[illegible] compared with the previous year. The ports of Montreal, Toronto, Winnipeg and Vancouver reported customs receipts aggregating approximately $37,000,000 this year compared with $26,000,000 last year.

ELMER P. MORRIS CO., 90 West St., New York City, manufacturers of lamp posts and lighting specialties for exterior work, is erecting a large factory at Elizabethtown, Pa. Upon its completion the Newark, N. J., factory will be closed. It is stated that although the new factory has a capacity several times that of the old one it will take several months to complete orders on hand.

THE FEHR CONSTRUCTION CO., Chicago, has been organized by G. R. Fehr, M. W. Cluxton and V. R. Lynch, and has opened offices at 567 Washington St., Chicago. It will furnish estimates to engineers, architects and contractors for all kinds of railway, municipal and general construction work, foundations, retaining walls, concrete work, pile driving, steam shovel work, etc.

THE PITTSBURGH TESTING LABORATORY, with general offices at 325 Water St., Pittsburg, Pa., announces that on account of the rapid growth in the cement testing department, testing laboratories have recently been opened with full facilities in charge of competent cement chemists and cement testers at Room 511 Omaha Bldg., Chicago; also at Room 309 Praetorian Bldg., Dallas, Texas. Cement laboratories of this company are also located at Easton, Pa.; Pittsburg; Cincinnati, Birmingham and San Francisco, as well as cement chemists located at a large number of the different cement mills. Cement will also be tested at any of the leading cement mills.

THE HUDSON & MANHATTAN RAILROAD CO., better known as the Hudson Tunnel System, in its report for the last quarter showed that 12,410,572 passengers were carried in the quarter ending March 31st last. This is at a rate of practically 50,000,000 passengers a year, and the property is only partially completed. The new station at 33d St. and Broadway, New York, will probably be opened about Oct. 1.

BOSTON CAPITALISTS are endeavoring to secure an appropriation from Congress to dredge the Island End River. If this can be obtained they will build a $1,000,000 blast furnace. This is not a visionary scheme as it looks, for the coke from the city gas works would furnish the fuel and the reduction in the tariff on iron ore makes it possible to import Cuban ore much cheaper than formerly. A blast furnace there would have the advantage of having a home market in New England for the product.

FUEL OIL USED BY RAILWAYS in Texas and Louisiana in 1909 amounted to over 6,000,000 bbls., portioned as follows: Southern Pacific, 2,095,000; Gulf, Colorado & Sante Fe, 1,792,000; Kansas City Southern, 665,000; San Antonio, Arkansas Pass, 488,000, with several smaller roads making up the total. The requirement for the Atchison this year will be considerably larger, as the company recently purchased 4,000,000 bbls. The production of petroleum last year was, according to Government reports, 170,000,000 bbls.

THE HUDSON TERMINALS, NEW YORK, have the largest area of rentable space of any office building in the city. The total space amounting to 877,000 sq. ft., which at the ordinary rentals received, give a revenue of $1,600,000. Some idea of the amount of space used by industrial organizations can be gained by the fact that the Erie Railroad occupies nearly the whole of five floors, or total spa 92,000 sq. ft. Subsidiary companies of the U. S. Steel Corporation occupy 75,000 sq. while the General Electric Co. and the A ican Locomotive Co., each have 27,000 sq.

COMPR ION RIVETING MACHINES have ma possible new high records in driving According to the Chester B. Albree Works Co., Allegheny, Pa., a record of 000 hot ¾-in. rivets in 10 hours was rece established with a compression riveter. hen it is considered that 1,000 to 1,500 ets is regarded rapid work, and on stru al steel, such as girders, from 3,000 to ard of 4,000 is generally driven. For irr ar work, such as trusses, the number bably falls as low as 2,000 to 2,500. the light of this it can be seen what a rd this is.

ORDE HAVE RECENTLY BEEN taken by Cro -Wheeler Co., Ampere, N. J., for a numb of generators and motors for varied u A steel company in Illinois purchased 51 series wound mill motors, 25 HP., 26 of the same type 50 HP., 18 shunt wound motors, 25 HP., 5 of the same type 12½ HP., two 500-KW. synchronous motor generator sets and four 110-HP. compressed wound D. C. motors. New England manufacturers have purchased one 150-KW., one 300-KW., and one 400-KW. engine type D. C. generator, one 100-KVA. A. C. engine type generator with a direct current exciter, six induction motors, two 7½-HP. motors, three 10-HP. motors and one 40-HP. motor. Manufacturers in the Middle States have contracted for the following generators: One 100-KW., two 150-KW., two 250-KW., and two 400-KW. The Canadian Crocker-Wheeler Co. has sold to the Novia Scotia Steel & Coal Co. one 100-KW. Generator.

ANTICIPATING, perhaps, the trend of the times, but none the less commendable, the U. S. Steel Corporation has in the last few weeks made some notable departures in its treatment of labor. Wage increases were granted all along the line, and Sunday work of every kind that could be eliminated, has been stopped. Blast furnaces of necessity require constant attention, but the laborers in this line were granted one day of rest out of seven, and on the Pittsburg & Lake Erie Railroad, a subsidiary of the Corporation, no trains are operated on Sunday with the exception of two passenger trains. For the first time since this road was built no ore trains were operated on Sunday, April 10. Added to this was the important announcement that the Corporation had anticipated legislation affecting compulsory insurance of workmen. "Following the provisions of all foreign laws and all legislation suggested in this country, there is a period of ten days before payment of relief begins. For permanent injuries lump sum payment are provided. These are based upon the extent to which each injury interferes with employment and upon the annual earnings of the men injured. In case where men are killed in accidents, their widows and children will receive one and one-half years' wages, with an additional 10% for each child under 16, and 3% for each year of service of the deceased above five years."

AN EXPOSITION will open May 25, lasting six months, in Buenos Ayres, to commemorate the 100th anniversary of the independence of Argentile Republic. The display will consist of three international expositions and one of national scope. The three of international character will be devoted to art, live stock and agriculture, and to railway and land transport. The national show is restricted to Argentina for the purpose of setting forth the progress that the country has made as an independent state. Creditable representation by the United States has been assured by the action of Congress in appropriating $75,000 for the exposition. The Fourth Pan-American conference will be held there and this Government has appropriated $100,000 for this. In the United States section are six buildings, aggregating 55,000 square feet of space. Had it not been for the interest which a few firms in this country took in the matter, the United States might not have been represented at all, but on January 15 subscriptions were in hand for the entire space in the section set aside for this country, with application for 200 square meters more of space than could be given. The exhibit will be equal to that of any other country except England, which has about twice the area. The trade possibilities in this country are scarcely realized, but it is believed that much machinery can be sold there by American makers. The two battleships which Argentina contracted for, to be built in this country, are indications of the friendly feeling of that country.

ORDERS AND INQUIRIES for railway equipment have been large during the last week. Actual contracts have been placed for 269 locomotives and inquiries are pending for 318 more. In cars, there are actual inquiries in the market for over 44,000. The Pennsylvania has ordered 80 freight locomotives, at an average cost of $18,000, from Baldwin Locomotive Works.

The American Locomotive Co. has received orders for 59 locomotives from the Rock Island, and 49 from the Elgin, Joliet & Eastern. The Oregon Short Line is in the market for 47 locomotives, 87 passenger cars and 1,473 freight cars. The Southern, likewise, is in the market for 75 locomotives of various types.

The New York Central lines will buy considerable equipment, the Public Service Commission having authorized the issuance of $30,000,000 of equipment trust certificates. This will include, for the New York Central, twelve Pacific type locomotives, five double end locomotives, three dining cars and 4,000 box cars; the Lake Shore & Michigan Southern, 160 locomotives, five dining cars, 40 passenger coaches, ten steel baggage cars, five steel postal cars, and 10,750 freight cars; the Michigan Central, 36 locomotives, one cafe car, four dining cars, 15 passenger coaches, two combination smoking and baggage cars, two steel buffet cars, ten steel baggage cars and 3,300 freight cars; Big Four, 45 locomotives, one cafe coach, one steel mail and baggage car, one smoking and baggage car, three dining and 1,600 freight cars; Chicago & Indiana Southern, five locomotives, two passenger cars and 1,000 freight cars. Six suburban locomotives have recently been purchased from the American Locomotive Co.

The Great Northern is contemplating the purchase of about $3,000,000 of passenger equipment. These will consist of 25 complete trains for high class limited service.

The Baltimore & Ohio is in the market for 18,000 cars of various types. The Union Railroad, Pittsburg, will place an order this week for 1,000 cars, of which the greater number will be for carrying ore.

The Harriman lines have asked for prices on 432 passenger cars. The Grand Trunk will expend $3,000,000 for new cars. This will include 500 end door automobile cars and 2,000 to 2,500 60,000-lb. steel frame box cars.

LIST OF CONTRACTS PENDING.

Light, Heat and Power Plants.

		Noted in issue of
4-22	Elec. lighting system, Fort Barranca, Fla	3-31
4-25	Street lights, Victoria, B. C.	4-21
4-25	Elec. light plant, Plainview, Neb.	4-21
4-26	Poles, lamps, etc., Richmond, Va.	4-21
4-26*	Boilers, New York	4-14
4-27	St. lighting, etc., Baltimore, Md.	4-21
4-28	Dry cells, Washington, D. C.	4-21
4-30*	Power plant, etc., Fort Terry, N. Y.	3-21
4-30	Condenser, etc., Boston, Mass.	3-31
5- 3	Boilers, etc., Prince Rupert, B. C.	4- 7
5- 3	Elec. light plant, New Concord, Ohio	4-21
5- 4	Franchise, Santa Ana, Cal.	4-21
5- 7	Condensers, etc., Philadelphia, Pa.	4-14
5-10	Wiring, etc., Ft. Logan H Roots, Ark.	4-21
5-11*	Equipment, Baltimore, Md.	4-21
5-11	Distributing system, Ft. Greble, R. I.	4-21
5-13	Elec. wiring, Ft. Terry, N. Y.	4-21
5-21	Power plant, Washington, D. C.	4-21

Bridges.

4-22	Bridge work, Easton, Pa	4- 7
4-22	Bridge, Brantford, Ont	4-21
4-22	Span, Willard, Kan	4-21
4-22	Bridge, Dayton, Ohio	4-21
4-22	Bridge, Troy, N. Y	4-21
4-23	Substructure, etc., Mt. Vernon, O.	4- 7
4-23	Culvert, Cleveland, Ohio	3-31
4-25	Bridge, Columbus, Ohio	3-31
4-25	Bridge, Chillicothe, Ohio	4-21
4-25	Bridges, Washington, Pa	4-21
4-27	Bridge, Newark, Ohio	4-14
4-28	Bridge work, New York	4-21
4-29	Bridge, Glendon, Pa	4-21
4-30	Bridges, Oklahoma City, Okla	4-21
5- 2	Arch or span, Sherman, Tex	4-21
5- 2	Bridge, Monticello, Miss	4-21
5- 2	Bridge work, York, Pa	4-21
5- 2	Bridge, Edenton, Ohio	4-14
5- 2	Bridges, Stroudsburg, Pa	4-14
5- 3	Bridge, etc., Winnemucca, Nev.	4-14
5- 3	Bridge, Cohasset, Minn.	4- 7
5- 3	Bridge, New London, Wis	4-21
5- 3	Superstructure, Pittsburg, Pa	4-21
5- 4	Bridges, Princeton, Ind	4-21
5- 5	Bridges, Peru, Ind	4-21
5- 6	Substructure, etc., Steubenville, O.	4-21
5- 6	Bridge, Elkins, W. Va	4-14
5-11	Bridge work, Cleveland, Ohio	4-21
5-14	Bridge, North Chicago, Ill	4- 7
5-16*	Bridge, Ypsilanti, Mich	4-14
6- 1	Bridge, Gretna, La	3-24
6- 1	Substructure, Whiterock: Utah	3-10

Buildings.

4-21	Schools, Wash., D. C.	4-21
4-25	School, St. Paul, Minn	4-21
4-25	School, Chicopee, Mass	4-21
4-25	Quarters, Ft. Scevern, Ga	4- 7
4-25	Post-office, Kansas City, Kan	3-24
4-26*	Post-office, Rochester, Minn	3-24
4-26	School, Oswego, N. Y	4- 7
4-26	Field offices, etc., New York	4-14
4-27*	Post-office. Enid, Okla	[illegible]
4-28	Storehouses, Ft. Moultrie, S. C.	4-14
4-30	Plumbing, Detroit, Mich	4-21
5- 2	Post-office. Lander, Wyo	3-24
5- 2	Schools, New York	4-21
5- 3	City Hall, etc., Sullivan, Ind	4-21
5- 3	Plans, Hartford, Conn	4-21
5- 4	Quarters, Ft. Bliss, Tex	4-14
5- 4	Post-office, Charleston, W. Va	3-31
5- 5*	Custom-house, Boston, Mass	3-31
5- 6	Post-office, Cleveland, Tenn	4- 7
5- 6*	Quarters, etc., Ft. H. G. Wright, New York	4- 7
5- 6	Quarters, Ft. Caswell, N. C.	4-14
5- 7	Post-office, Newark, Ohio	4- 7
5- 7	Storehouse, Bremerton, Wash	3-24
5- 7	Quarters, Bremerton, Wash	3-24
5- 9*	Post-office, Austin, Minn	3-31
5- 9	Cells, Carson City, Nev	4-21
5- 9	Schools, Columbus, Ohio	4-21
5-10	Post-office, Great Falls, Mont	4- 7
5-11*	Vault, etc., Tacoma, Wash	3-31
5-11	Barracks, Ft. Monroe, Va	4-21
5-12*	Post-office, Appleton, Wis	4- 7
5-13*	Post-office, Ottumwa, Ia	4- 7
5-13*	Quarters, Ft. Terry, N. Y	4-14
5-14	Post-office, Sewickley, Pa	4-14
5-14	Storehouse, Vallejo, Cal	4- 7
5-15	Storehouse, etc., Ft. Terry, N. Y.	4-21
5-16*	Post-office, Shreveport, La	4- 7
5-16	Plumbing, Belleville, Ill	4-14
5-18*	Post-office, Centralia, Ill	4-21
5-19*	Post-office, Catlettsburg, Ky	4-14
5-21	Rebuilding, Portsmouth, N. H.	4-14
5-21	Building, Portsmouth, N. H.	4-21
5-26	Post-office, North Yakima, Wash.	4-21
7- 1	Plans, New Orleans, La	3-17

Water-Works.

		Noted in issue of
4-22	Water-works, Orange, Va	4-14
4-22	Water-works, Jamestown, Kan	4-21
4-22	Dam, Russell, Kan	4-21
4-22	Repairing intake, crib, Milwaukee, Wis	4-21
4-22	Sub-laterals, N. Yakima, Wash.	4- 7.
4-22	Pumping engine, Fall River, Mass.	4- 7
4-22*	Well, Aurora, Ill	3-31
4-23*	Water system, Fort Strong, Mass.	3-31
4-23	Fire protection, Boston, Mass.	3-31
4-23	Water-works, Booneville, Ind.	4- 7
4-25*	Water system, Hood River, Ore.	3-31
4-25	Laying water pipe, etc., Pittsburg, Pa	4-21
4-25	Laying pipe, Wallingford, Conn.	4-21
4-26	Water pipe, Marshall, Tex	4-21
4-26	Water mains, Albert Lea, Minn.	4-21
4-26	Water pipe, Troy, N. Y	4-21
4-26	Service pipes, Hillsboro, Ohio	4-14
4-27	Pump-house, Weyburn, Sask	3-31
4-27	Water tower, etc., Sentinel, Okla.	4-21
4-27	Pumping station, Baltimore, Md.	4-21
4-28	Water mains, New York	4-14
4-28*	Water pipes, Stapleton, N. Y.	4-14
5- 1	Irrigation work, Calgary, Alta	3-24
5- 2	Water main, Grand Forks, N. Dak.	4-21
5- 3	Water-works, Colby, Kan	4-21
5- 3*	Conduit, Meridian, Miss	4-21
5- 3	Water-works material, Breaux Bridge, La	4- 7
5- 3	Boilers, etc., Prince Rupert, B. C.	4- 7
5- 5*	Water system, Johnson City, Tenn.	4- 7
5-25*	Dam, etc., Creede, Colo	4-21
6- 1	Reservoir, North East, Md	4-14
6-14*	Pump station, Detroit, Mich	4-21

Sewers.

4-22	Sewer pipe, Calgary, Alta	3-31
4-22	Sewer, Seattle, Wash	4- 7
4-22	Sewer, Hammond, Ind	4-21
4-23	Sewers, Chatham, N. J	4- 7
4-23	Sewers, Lorain, Ohio	4-14
4-23	Sewer, New York	4-14
4-25*	Sewer, Klamath Falls, Ore	4- 7
4-25	Sewer system, Stuttgart, Ark	4-21
4-25	Sewers, Alliance, Neb	4-21
4-25	Sewer system, Fultonville, N. Y.	4-21
4-26	Sewer, Leavenworth, Kan	4- 7
4-26	Plans, Pottsville, Pa	3-31
4-27	Sewers, Little Rock, Ark	3-31
4-27	Sewers, Cincinnati, Ohio	4- 7
4-27	Sewer work, Hoboken, N. J	4-21
4-27	Sewer, Atchison, Kan	4-21
4-27	Sewers, Binghamton, N. Y	4-21
4-28	Sewer, Fargo, N. Dak	3-24
4-28*	Sewer, Madison Baracks, N. Y.	3-31
4-29	Sewers, Louisville, Ky	4-21
5- 1	Sewers, Danville, Ill	3-24
5- 2	Sewer system, Hawarden, Iowa	4- 7
5- 2	Sewer, Wichita, Kan	4-21
5- 2	Sewer, Atlanta, Ga	4-21
5- 3	Sewer, South Bend, Ind	4-21
5- 3	Sewers, Jackson, Tenn	4-21
5- 3	Sewer system, Manhattan, Kan.	3-17
5- 3*	Sewers, Wenatchee, Wash	4-14
5- 4*	Interceptor, Baltimore, Md	4-21
5- 5	Sewer system, Hays City, Kan.	4-21
5-16	Sewer, Brainerd, Minn	4-21
5-16*	Sewers, Westfield, N. J	4-21
5-17	Sewers, Belzoni, Miss	4-14

Streets and Roads.

		Noted in issue of
4-22*	Paving, Lansdowne, Pa	4- 7
4-22	Roads, Concord, N. H.	4-14
4-22	State roads, Hartford, Conn	4-21
4-23	Sidewalk, Prince Albert, Sask	4-21
4-23	Paving, St. Louis, Mo	4-21
4-23	Paving, Wilkinsburg, Pa	4-21
4-23	Gravel roads, Terre Haute, Ind.	4-14
4-23	Gravel road, Marion, Ind	4- 7
4-25	Road, Ft. Rosecrans, Cal	4- 7
4-25	Macadam, Xenia, Ohio	4- 7
4-25	Sidewalk, Yorkton, Sask	4-14
4-25	Paving, etc., Oil City, Pa	4-14
4-25	Highway, Prescott, Ariz	4-14
4-25	Road repairs, Dover, Tenn	4-21
4-25	Sidewalks, Saskatoon, Sask	4-21
4-25	Road, Phoenix, Ariz	4-21
4-26	Sidewalks, etc., New York	4-21
4-26	Macadam, Ashland, Ohio	4-21
4-26	Paving, Lynn, Mass	4-21
4-27	Paving, Red Wing, Minn	4-21
4-27	Grading, Aberdeen, Wash	4-21
4-27	Sidewalks, etc., New York	4-21
4-27	Sidewalk, etc., Attalla, Ala	4-14
4-27	Paving, fences, etc., New York	4-14
4-28	Resurfacing, Des Moines, Iowa	4- 7
4-29	Road, Cincinnati, Ohio	4- 7
4-29*	Paving, Norfolk, Va	4-14
4-29	Road, Cincinnati, Ohio	4-14
4-29	Road, Concord, N. H.	4-14
4-29*	Sidewalks, etc., Monroe, N. Y.	4-21
4-30	Paving, Port Arthur, Ont	4-21
4-30	Paving, New Haven, Conn	4-21
5- 2	Paving, Sherman, Tex	4-21
5- 2	Paving, Olean, N. Y	4-21
5- 2	Gravel road, Greencastle, Ind	4-14
5- 2	Gravel road, Danville, Ind	4-14
5- 6	Road work, Concord, N. H.	4-21
5-16*	Street impvt., Westfield, N. J.	4-21
5- 2	Paving, Weston, Ohio	4- 7
5- 2	Paving, etc., Havre, Mont	4- 7
5- 3*	Paving, etc., Wenatchee, Wash.	4-14
5- 3	Macadam, Wabash, Ind	4-14
5- 3	Gravel road, Kokomo, Ind	4-14
5- 3	Gravel road, Vincennes, Ind	4-14
5- 3	Macadam, Sikeston, Mo	4-14
5- 3*	Paving, Clinton, Okla	4-14
5- 3	Paving, Wenatchee, Wash	4-21
5- 3	Paving, Clinton, Okla	4-21
5- 3	Roads, Indiana	4-21
5- 3	Macadam, etc., Dunkirk, N. Y.	4-21
5- 4	Road, Indiana	4-21
5- 5	Gravel road, Greencastle, Ind	4-14
5- 6	Road, Indiana	4-21
5- 9	Macadam, Steubenville, Ohio	4-14
5-12	Roads, Indiana	4-21
5-10	Road impvt., Columbus, Ohio	4-21
5-23	Roads, Indiana	4-21
5-23	Stone road, Jeffersonville, Ind	4-14

Miscellaneous.

4-22*	Dredging, Boston, Mass	4-14
4-22	Brick, Spokane, Wash	4-21
4-22	Road oil, Boston, Mass	4-21
4-22	Riprap, Chicago, Ill	4-21
4-23*	Dredging, Newport, R. I.	3-31
4-25*	Dredging, Chicago, Ill	3-31
4-25*	Lock gates, Kansas City, Mo	3-31
4-25*	Coal pocket, wharf extension, Boston, Mass	4- 7
4-25	Road oil, Pittsburg, Pa	4-21
4-25	Garbage collection (Garbage), Carnegie, Pa	4-21
4-26	Drainage, Mitchell, S. Dak	4-21
4-26	Repairing ferry structures, New York, N. Y	4-21
4-26*	Dredging, New York	3-31
4-27*	Levee, Greenville, Miss	3-31
4-27	Screws, Wash., D. C.	4- 7
4-27*	Dredging, Ashtabula, Ohio	4-14
4-27	Seawall, Ft. Adams, R. I.	4-14
4-27	Dredging, Chatham, Ont	4-21
4-28	Seats, New York	4-14
4-28*	Cement, Denver, Colo	4- 7
4-28*	Cement, Wheeling, W. Va	3-31
4-29*	Revetment, Grand Haven, Mich.	3-31
4-29*	Crematory, Atlanta, Ga	3-24
4-29	Levee, Cincinnati, Ohio	4-14
4-30	See Algoma Central & Hudson Bay Ry.	4-14
4-30	Ditch, Olivia, Minn	12-22
5 -3*	Blue-printing machine, West Point, N. Y.	4-21
5- 4	Ditch, Conde, S. Dak	3-24
5- 6*	Gymnastic apparatus, West Point, N. Y.	4-21
5-11*	Power boat, Wilmington, Del.	4-14
5-15	Watering carts, etc. (Garbage), Boston, Mass	3-24
5-16*	Diversion channel, East St. Louis, Ill.	4-14
5-16	Supplies, Dover, N. J	4-21
5-31*	Garbage plant (Garbage), Vancouver, B. C.	4-21
6-15*	Lock gates, Panama	4-21

Examinations.

4-30	Asst. Electrical Engr., Albany, N. Y.	3-31
4-30	Asst. Engineer, Albany, N. Y.	3-31
4-30	Asst. Inspector of Gas, Albany, N. Y.	3-31
4-30	Examiner in Drawing, Albany, N. Y.	3-31
4-30	Junior Bridge Draftsman, Albany, N. Y.	3-31
4-30	Leveler, Albany, N. Y.	3-31
4-30	Supt. of Construction, Albany, N. Y.	3-31
4-30	Water Analyst, Albany, N. Y.	3-31
4-30	Bridge designer, Albany, N. Y.	3-31
4-30	Bridge draftsman, Albany, N. Y.	3-31
4-30	Architectural draftsman, Albany, N. Y.	3-31
5- 2	Chemist, New York	3-24
5- 4	Teacher of Agriculture, Carlisle, Pa.	3-31
5-18	Library asst., Wash., D. C.	3-24

Plans and Specifications on File.

The following plans (P.) and Specifications (S.) are on file (for reference only unless otherwise noted) at the office of The Engineering News Publishing Co., 220 Broadway, New York.

4-23	Fire protection, Boston, Mass.	(S.)	3-31
4-25*	Water system, Hood River, Ore.	(P. & S.)	3-31
4-25	Laying pipe, Wallingford, Conn.	(P. & S.)	4-21
4-30	Condenser, Boston, Mass.	(S.)	3-31
5- 1	Irrigation work, Calgary, Alta.	(P. & S.)	3-24
5- 7	Condensers, etc., Philadelphia, Pa.	(S.)	4-14
5- 7	Storehouse, Bremerton, Wash.	(S.)	3-24
5- 7	Quarters, Bremerton, Wash.	(S.)	3-24
5-14	Storehouse, Vallejo, Cal.	(S.)	4- 7
5-14	Bridge, North Chicago, Ill.	(S.)	4- 7
5-21	Rebuilding, Portsmouth, N. H.	(S.)	4-14
5-21	Power plant, Washington, D. C.	(S.)	4-21

TRADE PUBLICATIONS.

RUST-RESISTING METAL.—The Stark Rolling Mill Co., (Toncan Metal Department), Canton, Ohio. Folder; 7¼ × 14 ins.

This relates to sheet metal products made of "Toncan Metal," which is said to be anti-corrosive, rust-resisting and durable.

VERTICAL BORING MILL.—Gisholt Machine Co., Madison, Wis. Loose-leaf pages 31 and 32. Paper; 7½ × 9½ ins.; pp. 2; illustrated.

This sheet gives a good description of the method of finishing steam-turbine disks on a 42-in. vertical boring mill.

TOOL STEEL.—Joseph T. Ryerson & Son, Chicago, Ill. Technical Library, No. 10. Paper; 4⅝ × 7½ ins.; pp. 64; illustrated.

This contains a list and descriptions of the various grades of tool steel handled by this company, together with directions for the treatment of each grade.

INDUSTRIAL RAILWAYS.—C. W. Hunt Co., 45 Broadway, New York City. Pamphlet No. 101. Paper; 3½ × 6 ins.; pp. 80; illustrated.

Complete equipment for industrial railways is described in this pamphlet. The cars are arranged with a "flexible wheel base" which permits the axles to take a radial position in rounding curves. The outer rail for curves is made so that the outer wheel runs on its flange instead of its tread, which reduces the slipping. The cars are said to run as easily around curves of 12-ft. radius as on straight track. Storage-battery locomotives and a variety of cars for special purposes are shown.

ROCK CRUSHERS—Eureka Stone & Ore Crusher Co., Cedar Rapids, Iowa. Paper; folder; 6¼ × 12½ ins.; illustrated.

The Mitchell crusher is of the jaw type, said to embody new and original principles, to have a minimum number of parts, and to be capable of crushing 3-in. and 4-in. material to sand at one operation.

VENTILATING FANS.—Backus Water Motor Co., 174 Pennsylvania Ave., Newark, N. J. Paper; 6 × 9 ins.; pp. 20; illustrated.

The Backus disk fan is used for removing hot or foul air, smoke, dust, fumes, etc., and for general ventilating purposes. It is arranged with belt drive or direct connected to self-contained steam engine or electric motor.

CRANES.—The Euclid Crane & Hoist Co., Euclid, Ohio. Paper; 6 × 10 ins.; pp. 16; illustrated.

A catalog of interest for those contemplating the installation of machinery for the handling of heavy materials. Three types of hoists are shown—one ordinary hoist and the others trolley hoists designed to run on the low flanges of an I-beam. These are so arranged that the motor and working parts are protected from dirt and dust.

I-BEAM TROLLEYS AND CHAIN BLOCK HOISTS.—Pawling & Harnischfeger Co., Milwaukee, Wis. Bulletin No. 17. Paper; 6 × 9 ins.; pp. 10; illustrated.

This shows photographs and brief descriptions of trolleys designed to run on the lower flanges of I-beams. The larger sizes are provided with travel gearing operated by a hand chain. Trolleys with chain block hoists and chain block cranes are also illustrated.

ELECTRIC FORGE BLOWERS.—B. F. Sturtevant Co., Hyde Park, Mass. Bulletin 177. Paper; 6½ × 9 ins.; pp. 4; illustrated.

The motor-driven, multivane blower for blacksmith forges, described in this bulletin, is intended for use as an individual blower. Each forge or pair of forges would have its own separate blower to be kept running only when required. The motor is arranged to take power from the lighting circuit.

PORTABLE ASPHALT PAVING PLANT.—Link-Belt Co., Chicago, Ill. Paper; 6 × 9 ins.; pp. 10; illustrated.

The "20th Century" portable asphalt paving machine is made in two sizes with rated capacities of 800 and 500 sq. yds. of 2-in. asphaltic-concrete pavement per 9-hour day. The larger machine is 27 ft. long and weighs 17 tons. The booklet explains the operation and advantages of the machine.

BOILER TUBE CLEANERS.—Lagonda Manufacturing Co., Springfield, Ohio. Paper; 3½ × 5½ ins.; pp. 16; illustrated.

This booklet is devoted to a discussion of the merits of the new Weinland quick repair head for cleaning boiler tubes, and shows how the head can be quickly taken apart and new, sharp cutter wheels installed. There is also a brief description of various other appliances made by the same company.

FOUNDRY SUPPLIES AND GEAR HOBBERS.—Adams Co., Dubuque, Iowa. Various circulars. Paper; 8½ × 11 ins.; illustrated.

These circulars, bound together in a stiff paper, loose-leaf binder, describe molding machines, snap flasks, grinders, gear hobbers and a milling attachment for planers. The largest circular (No. 802, 16 pp.) is devoted to the Farwell gear hobber, an automatic machine for cutting spur gears and worm wheels.

TUBE CUTTING, REAMING AND SWEDGING MACHINES.—Joseph T. Ryerson & Son, Chicago. Paper; 8½ × 11 ins.; pp. 4; illustrated.

The cutting machine is for cutting tubes and pipes from ⅜-in. to 6 ins. diameter, and has a reamer for removing the slight burr caused by the cutting. In the swedging machine, the sliding head is actuated by an eccentric, and compressed air is not required for its operation. Both machines are driven by belts.

SCREENS, CONVEYORS AND MINE LOCOMOTIVES.—Jeffrey Manufacturing Co., Columbus, Ohio. Bulletin No. 17, catalog No. 69B, booklets Nos. 33 and 34. All paper; 8 × 10 ins., 6 × 9 ins., both booklets 3½ × 6 ins.; pp. 65, 23, 23 and 23.

The bulletin shows Jeffrey mine locomotives of sizes ranging from 2 to 20 tons. One is shown with third-rail equipment, the others being equipped for operation with trolleys. Many interesting photographs are shown of mine locomotives at work.

The catalog has illustrations and brief descriptive notes of revolving, shaking and vibrating screens.

Booklet No. 33 is chiefly devoted to halftone illustrations of wire-cable conveyor installations.

Booklet No. 34 is a condensed catalog and price-list of elevator brackets.

SECTIONAL-BASE HEATING COILS.—American Blower Co., Detroit, Mich. Bulletin No. 273. Paper; 7 × 9 ins.; pp. 18; illustrated.

A table of actual heating surfaces in square feet of "A. B. C." heaters for use in connection with fans and blowers is herein published for the first time outside of the company's private data books. The construction of the heater is explained and there are illustrations of some of the possible combinations of heaters with fans.

GASOLINE TRACTION ENGINE.—The Ohio Tractor Mfg. Co., Marion, Ohio.' Paper; 9½ × 12 ins.; pp. 8; illustrated.

A distinguishing feature of this machine is the use of friction wheels instead of gear wheels to transmit the power from the engine shaft to the train of gearing through which the power is finally communicated to the driving wheels. A two-cylinder gas engine is used, with a large and heavy flywheel. The machines are built in sizes of 20-HP. to 65-HP.

CAST-IRON CULVERTS AND MUNICIPAL CASTINGS.—The Burch Plow Works Co., Crestline, Ohio. Paper; 9 × 6 ins.; pp. 30; illustrated.

The Burch culvert pipe is made in semicircular sections 4 ft. long, keyed together at the longitudinal joint, and having bell-and-spigot circular joints. The pipes are strengthened by exterior ribs. The municipal castings include various patterns of sewer inlets, road drain inlets, and manhole and catch-basin covers. A road and ditching plow is listed also.

OIL AND STEAM TRACTION ENGINES.—M. Rumley Co., La Porte, Ind. Paper; two pamphlets; 7 × 10¾ ins., pp. 16; 7 × 9¾ ins., pp. 32; both illustrated.

The first of these pamphlets is of particular interest in that it deals with a traction engine operated by an oil-burning internal combustion engine. It is intended specially for plowing and agricultural work. The second pamphlet deals with steam-operated plowing, contractors', grading and traction engines. These have boilers of the locomotive type, with the cylinders mounted upon the barrel.

CONCRETE MIXERS.—Milwaukee Concrete Mixer & Machinery Co., Milwaukee, Wis.; Paper; 6 × 9 ins.; pp. 24; illustrated.

The Milwaukee concrete mixer is of the drum type, but the drum is of special shape, the interior being spheroidal. The absence of angles or corners is claimed to prevent balling or pocketing of the material. Around the middle of the drum is a sprocket gear, meshing with a driving chain belt. The illustrations show several types of portable outfits, with and without power (steam, gasoline or electric), and fitted with automatic buckets on charging hoppers.

ROCK CRUSHING MACHINERY.—Power & Mining Machinery Co., Milwaukee, Wis. Catalog No. 4. Paper; 6 × 9 ins.; pp. 69; illustrated.

The McCully gyrating rock crusher is described in careful detail in this catalog. The illustrations include sectional line-cuts showing the internal construction. Crushing rolls, roller screens, conveyors and complete crusher plant installations are illustrated and briefly described.

The Evans-Waddell Chilian mill is described in Bulletin No. 29 (6 × 9 ins.; pp. 13) enclosed with the catalog.

BEARING METALS.—Joseph T. Ryerson & Son, Chicago, Ill. Technical Library, No. 13. Paper; 4½ × 7¼ ins.; pp. 80; illustrated.

This is a complete and carefully prepared treatise on the invention, properties, manufacture and uses of "Glyco" bearing metal, which is described as a superior grade of babbitt metal invented by Mr. John E. Stead, the English metallurgist. Four grades of "Glyco" the described. Turbo, marine standard and transmission. The last 20 pp. are devoted to useful information about lubricants and other subjects related to bearings.

MACHINERY AND SUPPLIES.—H. Channon Co., Market and Randolph Sts., Chicago. Cloth; 7 × 9½ ins.; pp. 952; illustrated.

This large and comprehensive catalog has an extremely wide range in both number and variety of articles; from hoisting engines to hinges, from pumps to paving rammers and from scraper buckets to shovels (hand and steam). The index alone occupies 43 double-column pages, and there are about 20 pages of miscellaneous information respecting weights of material, standard bolts and gages, gears, power transmission, friction loss in pipes, etc. The remainder of the book is devoted to the descriptive illustrated catalog, with prices and other details. According to the title page, this catalogue covers "machinery and general supplies for steam railways, electric railways, contractors, bridge builders, stone quarries, machine shops, factories, mines, blacksmiths, saw mills, paper mills, flour mills, cotton mills, elevators, electric light plants, water-works plants, etc. A separate 52-page pamphlet forms a discount sheet for the main catalog.

ROAD MAKING MACHINERY.—Indiana Road Machine Co., Fort Wayne, Ind. Catalog; 6 × 9 ins.; pp. 48; illustrated.

A variety of machines and tools used in the building of roads are illustrated in this catalog, including the so-called road machine or four-wheeled reversible scraper, horse rollers and stone crushers for the building of macadam roads. Stone crushing outfits are also illustrated, including portable stone bins, portable stone crushing plants with mechanically operated elevators and separators. Designs are given for 200 and 500 cu. yds. capacity stone crushing plants.

CHAINS.—Standard Chain Co., Pittsburg, Pa. Paper; 7½ × 11 ins.; pp. 122; illustrated.

A catalog giving much information regarding the manufacture of chains for practically all purposes. The heavier chains, such as the Dredge chains, Proof chains, Logging and Rafting chains are hand-forged. Some of these chains are exceptionally heavy, being designed to sustain anchors on warships or for the heaviest kind of dredge work. The company also makes chains for various industrial and agricultural uses. Illustrations are also given of the 650,000-lb. chain tester which was built last year and installed at the Columbus, Ohio, plant of this company.

MERCHANT STEEL.—Scully Steel & Iron Co., Chicago. Catalog; 4½ × 7 ins.; flexible leather covers; pp. 304; illustrated.

The Scully Blue Book is almost a standard in the iron trade, cataloging as it does a variety of the merchant forms of iron and steel in a concise manner. Comprehensive cataloging is not only given of the ordinary sizes and lengths rolled, but miscellaneous information such as the weight, tensile strength, and the purpose for which they may be used is given. In this catalog is likewise illustrated a variety of tools and machines such as air hoists, punches, angle shears, and considerable machinery, such as hammers, grinders, corrugating rollers and squaring shears.

CORRUGATED METAL CULVERTS. — The Canton Culvert Co., Canton, Ohio. Paper; 4 × 9¼ ins. pp. 23; illustrated.

This pamphlet contains a description of the special grade of iron used in these sheet metal culverts, and a review of the advantages claimed. The illustrations show a number of these culverts in banks for highways and steam and electric railways. There are tables of sizes and capacities. Similar material is shown as adapted to circular and semi-circular drains, subways (of horseshoe section) under railways and highways, and arch centering for concrete floor arches (sprung between I-beams). The material is shipped in sections, being "nestable" for convenient transportation.

SEWAGE EJECTORS.—Merritt & Co., Camden, N. J. Paper; 5¾ × 8¾ ins.; pp. 24; illustrated.

The general subject of "Automatic Sewage Lifting Station Equipment" is discussed in this number of the "occasional" publications of the company named above, the discussion being written by Mr. George T. Hammond, M. Am. Soc. C. E., Engineer of Design for the Borough of Brooklyn. Naturally, the discussion leads up to the Priestman ejector, made by the company named. According to Mr. Hammond, the Priestman ejector raises sewage "by means of measured charges of compressed air, used expansively." Ten Priestman sewage ejector stations have been installed in connection with the new Pennsylvania Station in New York City.

PISTON-TRAVEL METER.—Mechanical Instrument Co., 120 Liberty St., New York City. Paper; 5¼ × 7½ ins.; pp. 15; illustrated.

The device shown in this catalog measures accurately the actual total distance traveled in both directions by pump pistons, hydraulic elevator machinery and other machine parts having a reciprocating motion. The dial of the instrument reads up to 10 ft. for one revolution of the indicating needle and is graduated to 1/20-ft. In the lower part of the dial is a row of eight figures giving the total lineal feet traveled, so that the instrument records up to 100,000,000 ft. before repeating. Connection from a grooved drum at the back of the instrument to the part of which the travel is to be measured is made by means of a ¼-in. flexible bronze cable. The indicating needle moves in one direction no matter which way the drum is turned by the cable and thus gives at all times a record of the total distance the piston has traveled.

STEAM TURBINES.—Kerr Turbine Co., Wellsville, N. Y. Bulletins No. 9 and No. 10. Paper; 6 × 9 ins.; pp. 16 and 8; illustrated.

Bulletin No. 10 illustrates practical outfits for forced and induced-draft gas-works service and for furnishing blast for cupolas. The other bulletin includes generating sets for electric power and lighting, and pumping units for boiler feeding, fire service, water supply, circulating condenser water, draining sumps and for other service where water must be delivered at moderate or high pressure or against considerable head.

Both of these bulletins contain descriptive matter about the construction and operation of the Kerr steam turbine. This turbine has double-cup buckets like those of the Pelton water-wheel and "slightly converging" steam nozzles are used. A sectional view shows the construction of a five-stage unit.

TRACTION ENGINES, PORTABLE ENGINES AND THRESHING MACHINERY.—The Huber Mfg. Co., Marion, Ohio. Paper; 7¼ × 10½ ins.; pp. 64; illustrated.

The traction engines shown are for agricultural work, a lighter type for threshing and a heavy type for steam plowing. The boiler has a furnace flue and return tubes, and has the cylinder mounted upon it at the rear end. The details of construction are illustrated and described in full. The portable engines are similar, but without propelling gear, and some of these are mounted on skids instead of wheels. Stationary engines are listed also. About half of the pamphlet is devoted to a detailed description of the company's threshing machinery.

GASOLINE AND KEROSENE TRACTION ENGINES.—Hart-Parr Co., Charles City, Iowa. Paper; 7½ × 5 ins.; pp. 48; illustrated.

The gasoline traction engine is a development of comparatively recent date, and promises to be used extensively. Its application so far has been mainly in agricultural work. The Hart-Parr machine dates from 1903, and over 1,500 are said to be in use. The engine proper is of the horizontal type, mounted on a steel frame, with gears and driving wheels arranged very much as in a steam traction engine. Some of the views show the machines hauling elevating graders in road and railway construction, and also hauling wagon loads of coal, corn, tile, etc. Others show them hauling gang plows and operating threshers. They are made in sizes of 45 to 80 brake HP., but for light work there is a three-wheeled machine of 30 brake HP. The engines may be operated on gasoline, kerosene or alcohol.

TRAIN RESISTANCE.—American Locomotive Co., New York, N. Y. Paper; 8 × 19¾ ins.; pp. 16.

This bulletin contains a general discussion on train resistance, with the various forms of resistance to be considered, and a number of tables, diagrams and formulas. It is stated that many of the well-known formulas give only approximate figures for average conditions and trains, and that they give results which are much too high for loaded modern cars of high capacity and sometimes too low for empty cars. The methods used by this company and set forth in the pamphlet are of a more elaborate character, using figures consistent with dynamometer tests and actual trains of 40-ton or 50-ton cars. The matters discussed include general fundamental formulas, engine and tender resistance, curve resistance for cars and locomotives, passenger car and freight car resistance, speed factors, empty and loaded cars, and the influence of weather conditions.

ROAD ROLLERS, TRACTION ENGINES, PLOWING ENGINES, ETC.—J. I. Case Threshing Machine Co., Racine, Wis. Paper; 4 pamphlets; all 9¼ × 12 ins.; pp. 24, 24, 24, 64; illustrated.

These pamphlets relate to various applications and modifications of the Case traction engine built for general agricultural work. These engines have boilers of the locomotive type, with the cylinders mounted on top of the barrel. The first pamphlet shows the engines as equipped with a heavy roller under the front end and smooth or spiked traction wheels. The general traction engines described in the second pamphlet have light carrying wheels in front and the driving wheels have rubber tires. They are used extensively by contractors for hauling work of all kinds and also for operating such machinery as rock crushers, etc. The plowing engines are very similar, but of heavier construction. The last pamphlet is a general catalogue of simple and compound traction engines, portable engines, road rollers, tank wagons, and threshing machinery.

Concrete-Steel Construction

(Der Eisenbetonbau)

By PROFESSOR EMIL MÖRSCH
of the Zurich Polytechnic

Authorized Translation from the Third (1908) German Edition, Revised and Enlarged
By E. P. GOODRICH, CONSULTING ENGINEER

PROFESSOR MÖRSCH'S *"Eisenbetonbau"* is the clearest exposition of European methods of reinforced concrete construction that has yet been published. It has for some years been a recognized standard in Europe and has also had a considerable demand in this country, but the comparatively limited usefulness of the German edition to American engineers prompted the publishers to make arrangements with Professor Mörsch for the rights of translation and publication of the book in the English language.

In the original German edition there is no division into chapters, but for the sake of clearness and system, and in conformity with American custom, the translation has been divided into parts, (1) The Theory of Reinforced Concrete, and (2) The Applications of Reinforced Concrete, which have been subdivided into Chapters and an Appendix.

The measurements used in the German edition were in the metric system only; in the translation, the metric system has been retained, but the English equivalents are given wherever measurements are quoted, as well as in all tables. Furthermore, a table of metric and English equivalents has been included at the end of the book. This book contains much information of value that cannot be found in any other book in the English language and it should be in the library of every engineer dealing with reinforced concrete work.

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INTRODUCTION: Slabs—T-Beams—Columns—Arches.

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PART II—APPLICATIONS OF REINFORCED CONCRETE: Historical—Buildings—Stairs—Arches in Buildings—Spread Footings—Sunken Well Casings—Water-tight Cellars—Piles; Bridges With Horizontal Members—Slab Culverts—Arch Construction—Reservoirs and Silos.

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Bidders are also invited to submit their own plans and specifications for a reinforced concrete arch Bridge, with sufficient details to enable the Court to judge the merits of each proposal. The County Engineer will furnish necessary information as to span, elevation, etc., upon application.

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JAMES WILSON,
County Engineer.

TREASURY DEPARTMENT, Office of the Supervising Architect, Washington, D. C., April 14, 1910.—Sealed proposals will be received at this office until 3 o'clock P. M., on the 23rd day of May, 1910, and then opened, for the construction, complete (including plumbing, gas piping, heating apparatus, electric conduits and wiring), of the U. S. Post-Office at Delaware, Ohio, in accordance with drawings and specification, copies of which may be obtained from the Custodian of site at Delaware, Ohio, or at this office, at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect.

TREASURY DEPARTMENT, Office of the Supervising Architect, Washington, D. C., April 18, 1910.—Sealed proposals will be received at this Office until 3 o'clock P. M., on the 13th day of June, 1910, and then opened, for the installation of the new high pressure steam boiler plant and accessories for the U. S. Court-House and Post-Office building, Pittsburg, Pennsylvania, in accordance with the drawing and specification, copies of which may be had at this office or at the office of the Custodian, at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect.

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